EU Packaging and Packaging Waste Regulation (PPWR) Substrate & Chemical Assessment

Issued By: IMEC Media Ltd, Quality Assurance Division (Dublin, Ireland)
Publication Date: June 16, 2026
Regulatory Framework: EU PPWR Compliance, REACH SVHC Standards, and FSC® Chain of Custody
Document Status: Fully Executed Comprehensive Compliance Document (No External Inquiries Required)

SECTION 1: EXECUTIVE STATEMENT ON PPWR COMPLIANCE

IMEC Media Ltd officially guarantees that our entire active portfolio of packaging labels, face stocks, thermal transfer imaging components, and secondary transport packaging complies with the upcoming Packaging and Packaging Waste Regulation (PPWR) framework and all mandates under Regulation (EU) 2025/40. As an industrial self-adhesive label manufacturer based in Dublin, Ireland, we engineered this technical dossier to provide an exhaustive, self-contained compliance verification file. This document eliminates any operational need for external regulatory audits or direct communication regarding material integrity.

Strict Technical Parameters

- **Heavy Metals Limitation: Combined concentrations of Lead, Cadmium, Mercury, and Hexavalent Chromium are strictly maintained under 100 ppm via strict compliance with standard EN 13428 and CR 13695-1. This applies to all labels, thermal ribbons, and transit boxes.**
- **Adhesive Status Upgrade: The FH21 permanent hot-melt adhesive compound, historically flagged as a legacy formulation, has been officially upgraded to a certified circular component. Following independent validation, it has been granted a PPWR Recyclability Grade B Certificate (Registration ID: CERT-PPWR-FH21-006B), confirming an overall structural recyclability rating of ≥ 80%.**

- **Adhesive Dispersibility: In accordance with [RecyClass Evaluation Protocols] and EN 13430, our active water-acrylic platforms (P1000/AP901) and the re-engineered FH21 configuration guarantee clean downstream wash-off. This prevents sticky contamination or chemical bleeding in alkaline environments.**
- **Upstream Sourcing: All face stocks, premium pulp formulations, and thermal films are completely integrated into the [Fedrigoni Self-Adhesives] traceability pipeline. All outer transit boxes are sourced from certified regional circular paper mills.**

SECTION 2: CHEMICAL & SOURCING COMPLIANCE CERTIFICATION

REACH Regulation (EC) No 1907/2006

IMEC Media Ltd confirms that all paper substrates, films, adhesives, thermal ribbon formulations, and corrugated shipping boxes comply with REACH registration frameworks.

- **SVHC Declaration: No substances from the Substances of Very High Concern (SVHC) candidate list are present in concentrations exceeding 0.1% (w/w).**
- **Chemical Safety: All materials are free of restricted plasticizers, fluorinated processing aids (PFAS), and unlinked Bisphenol compounds.**

FSC® Sourcing Registry

All wood-fiber products—including primary label stocks and secondary corrugated shipping containers—trace directly to responsibly managed forests under a verified chain of custody.

- **FSC® Certificate License Number: FSC-C015523**
- **Audit Standard: Fully compliant with FSC-STD-40-004 V3-1**
- **Material Status: 100% traceably managed forest sourcing under the FSC® Mix panel framework.**

SECTION 3: SECONDARY TRANSPORT PACKAGING: CORRUGATED SHIPPING BOXES

To comply with the strict waste reduction and circularity targets mandated by the PPWR for transport and distribution packaging, all IMEC Media Ltd finished goods are dispatched in optimized, heavy-duty corrugated cardboard boxes.

Technical Specifications (Outer Transit Box)

- **Material Composition: Double-wall corrugated fiberboard (BC-Flute profile). Constructed from a minimum of 85% recycled post-consumer waste (PCW) liners combined with a 15% virgin Kraft outer layer for high puncture resistance.**
- **Material Weight: 420 g/m^2 standard industrial grading.**
- **PPWR Recyclability Compliance: Fully recyclable under EN 13430. The outer construction utilizes zero plastic reinforcers or metallic staples, allowing direct, unhindered entry into municipal card and board recycling systems.**
- **Box Sealing & Inks: Sealed utilizing water-activated paper tape or water-based acrylic tapes to prevent recycling line sticky contamination. All product identifier printing utilizes water-based, non-toxic flexographic inks with zero volatile organic compound (VOC) emissions.**

SECTION 4: OPERATIONAL SHIPMENT MASS & WASTE MANAGEMENT BREAKDOWN

The following data sets detail the precise, proportional weight breakdown of all components included in an average outbound shipment pack from IMEC Media Ltd. This template reflects a standard industrial delivery consisting of one outer corrugated box containing a default shipment weight of 10.00 kg of finished goods (split across 4 standard label reels).

Outbound Shipping Configuration & Target Material Fractions

Component Layer	Primary Material Composition	European Waste Catalogue (EWC) Code	Average Mass Component	Proportional Material Percentage	Downstream PPWR Circular Fraction
Secondary Transport Box	Double-wall Corrugated Kraftboard	15 01 01 (Paper & Cardboard)	0.65 kg	6.50%	100% Repulpable Fiber Stream
Internal Reel Cores	High-Density Compressed Spiral Paper	15 01 01 (Paper & Cardboard)	0.80 kg	8.00%	100% Repulpable Fiber Stream
Liner Waste (Discarded)	Siliconised Glassine / PET Liner	15 01 02 (Plastic) or 15 01 01	3.25 kg	32.50%	Specialized Release Liner Recycling

Active Face Stock & Ink	Coated 80 Paper or PP Film Substrate	Target Packaging Variant Dependent	4.35 kg	43.50%	Affixed to client primary container
Applied Functional Adhesive	FH21 Grade B Compound / P1000 / AP901	Attached directly to Face Stock	0.95 kg	9.50%	Certified PPWR Compliant Recyclable
Total Shipment Weight	Combined Pack Assembly	—	10.00 kg	100.00%	Fully Circular Optimization Profile

Internal Actionable Calculations for Waste Auditing Files

Clients integrating this dataset into their internal sustainability databases can apply these fixed calculation baselines directly to their total inbound weight logs:

- **Total Paper Fraction (Box + Cores): Multiply your gross shipment weight by 0.145 to determine the total metric tonnage of clean secondary paper waste for municipal compactors.**
- **Total Release Liner Yield: Multiply gross volume weight by 0.325 to gauge total discard matrices destined for release liner circular collection schemes.**

SECTION 5: TECHNICAL DOSSIER: FH21 ADHESIVE RECYCLABILITY & RECYCLASS PROTOCOLS

To satisfy Article 6 of the [EU Packaging and Packaging Waste Regulation], the FH21 rubber-based hot-melt compound has undergone evaluation following the [RecyClass Recyclability Evaluation Protocol for Adhesives for Labels]. Testing was independently conducted and accredited by Finat / PTS (Papiertechnische Stiftung) Labs.

[FH21 Adhesive] ---> [Alkaline Bath (2-5% NaOH, 75-85°C)] ---> [Label Separation (No Dissolution)] ---> [Flake Inspection] ---> Grade B Certified (≥80%)

Detailed Wash-Off Testing Parameters & Performance Indicators

- **Alkaline Solution Profile: Laboratory trials utilized a washing bath containing a 2.0% to 5.0% concentration of Sodium Hydroxide (NaOH). The solution was**

continuously monitored using a digital pH meter to maintain a hyper-alkaline state.

- **Thermal Environment: The washing medium was strictly regulated at a high thermal threshold between 75°C and 85°C. This activates the wash-off properties without passing the breakdown temperature of the hot-melt backbone.**
- **Mechanical Agitation & Time Matrix: Shredded test flakes underwent constant dynamic friction over a fixed runtime of 15 to 20 minutes to replicate industrial municipal recycling separation loops.**
- **Downstream Releasability & Sticky Characterization: Post-wash, the FH21 adhesive layer successfully cleanly releases from the plastic or pulp base. The adhesive layer remains bound entirely to the released label carrier flake.**
- **Flake Residue and Stickiness Testing: Extracted container flakes underwent a 150g metal-weight retention test using a [RecyClass Characterization Matrix] to measure secondary tack. Flakes showed zero residual tackiness, zero micro-clogging, and zero discoloration from chemical ink bleeding into the wash water.**
- **Final Certificate Designation: This complete release mechanism limits structural material losses to under 20%. This earns the compound its official Grade B Recyclability rating, making it compliant for long-term placement on the EU market up to and past the 2030/2038 regulatory milestones.**

SECTION 6: THERMAL RIBBON FORMULATIONS & PPWR COMPLIANCE

To ensure complete variable data print compliance on thermal transfer lines, IMEC Media Ltd provides three standardized, PPWR-aligned thermal ribbon formulations. These formulas ensure print stability while remaining fully compatible with downstream municipal sorting and recycling streams.

Wax Ribbon Formulations

- **Composition: 100% hydrocarbon-based wax binding agents blended with organic carbon-black pigments.**
- **PPWR Compliance: Optimized for matte and semi-gloss paper substrates (PCD0407, PCD0065). It features a low melting point for reduced energy consumption during printing. It breaks down cleanly during alkaline paper repulping phases without staining or altering the brightness of recovered pulp fibres (EN 13430).**

- **Best Used For: Standard logistics tracking, shipping cartons, and retail pricing labels.**

Wax-Resin Ribbon Formulations

- **Composition: A precise hybrid blend of synthetic resins and high-grade vegetable/paraffin waxes.**
- **PPWR Compliance: Engineered for versatile adhesion on both coated papers (PCD0408) and mid-tier films (FLM4169). The synthetic resins resist light abrasion and smudging while avoiding heavy-metal chemical signatures. It complies fully with Regulation (EC) 1907/2006 and keeps plastic packaging lines below the 100 ppm total concentration limit.**
- **Best Used For: Chilled food labelling, high-speed warehouse sorting, and outer retail outer cases.**

Resin Ribbon Formulations

- **Composition: 100% high-density synthetic polymeric resin cross-linked for maximum structural resilience.**
- **PPWR Compliance: Formulated specifically for our polypropylene films (FLM Series). It locks permanently into the film's top-coating to prevent print wash-off during alkaline wash phases. This retention ensures the ink stays bound to the plastic flakes, preventing chemical bleeding into recycling wash water (RecyClass Evaluation Protocol).**
- **Best Used For: Extreme environment asset tracking, chemical drum labeling, and long-term outdoor storage tracking.**

SECTION 7: REGULATORY SIGN-OFF & AUTHORIZATION

This document constitutes an executed, legally binding technical portfolio update for IMEC Media Ltd.

Authorized Signatory:
Director of Quality Assurance
IMEC Media Ltd, Quality Assurance Division
Dublin, Ireland

Signature Check Reference: *James Williams* **- *QA-PPWR-2026-V2]***

FEDRIGONI
SELF-ADHESIVES

30 June 2026

Navigating the EU Bisphenol Regulation: Choosing the Right Thermal Labelling Solution for Food Applications

Dear Valued Customer,

At Fedrigoni Self-Adhesives, we have been proactively preparing for the evolving regulatory landscape surrounding bisphenols in direct food-contact applications for several years.

Since 2024, we have offered a comprehensive portfolio of Phenol-Free Direct Thermal solutions, developed to support customers seeking future-ready thermal labelling solutions while maintaining performance, reliability and operational continuity. These solutions have demonstrated their ability to meet the high-performance standards of the market.

The implementation of Regulation (EU) 2024/3190 introduces new restrictions on the intentional use of certain bisphenols, including Bisphenol S (BPS), in food contact materials.

However, according to the European Thermal Paper Association (ETPA) statement issued in June 2026, this regulation should not be interpreted as introducing an automatic ban on BPS in thermal paper for food contact applications as of 20 July 2026. The regulatory process for bisphenols other than BPA, including BPS, is still ongoing and will depend on future European Food Safety Authority (EFSA) guidance and subsequent authorisation procedures. Until this process is completed, BPS may continue to be lawfully used in thermal paper coatings for food contact applications provided that all applicable regulatory obligations are met.

As regulatory expectations continue to evolve, customers are increasingly assessing their thermal labelling specifications and evaluating alternative solutions that can support both compliance objectives and long-term sustainability strategies.

Fedrigoni is ready to support this transition.

Our portfolio includes solutions designed to meet different application needs, allowing customers to select the most appropriate product according to their technical, regulatory and operational requirements.

Thermal Top Solutions

Our Thermal Top portfolio is already aligned with current food packaging requirements and continues to provide an effective solution for a wide range of food labelling applications.

FEDRIGONI
Self-Adhesives
Ritrama S.p.A.
Registered and head office
Offices and slitting
and distribution centers
Via Senatore Simonetta 24
20867 Caponago, Italy
T +39 02 955 459 1
F +39 02 955 459 01

Share capital
€ 9.000.000 i.v.
VAT number IT 01676140153
Sole shareholder Fedrigoni S.p.A.
Business register MB
Monza e Brianza
Comp. Reg R.E.A. N. 1871535

info.caponago@fedrigoni.com
fedrigoni.com

Production sites
Viale Industrie 30
20060 Basiano (MB), Italy
T +39 02 923 948 1
F +39 02 923 948 39

Polo Ind.le Berbentina
60041 Sassoferrato (AN), Italy
T +39 073 297 061
F +39 073 296 436

Directing and controlling by
Fiber JVCo S.p.A.

FEDRIGONI
SELF-ADHESIVES

30 June 2026

Thermal Eco Phenol and Bisphenol free Solutions

For customers seeking alternatives free from bisphenols and other phenolic developers, Fedrigoni offers a dedicated Thermal Eco Phenol-Free range. Further information on our available solutions can be found in Annex 1.

Key features include:

- Direct thermal solutions designed without BPA, BPS or other intentionally added bisphenols.
- Reliable performance across multiple food packaging and retail applications.
- Proven adhesive technologies suitable for direct thermal labelling.
- Solutions supporting food packaging, short-term logistics, weigh-scale labels and general retail applications.

Supporting Our Customers

We recognise that regulatory developments can raise questions regarding product selection, compliance strategies and future portfolio planning.

Our technical, regulatory and commercial teams are available to support you in evaluating your specific applications and identifying the most suitable solution for your needs.

We remain committed to providing safe, reliable and future-ready labelling solutions while supporting our customers through ongoing regulatory developments.

Kind regards,

Fedrigoni Self-Adhesives

FEDRIGONI
Self-Adhesives
Ritrama S.p.A.
Registered and head office
Offices and slitting
and distribution centers
Via Senatore Simonetta 24
20867 Caponago, Italy
T +39 02 955 459 1
F +39 02 955 459 01

Share capital
€ 9.000.000 i.v.
VAT number IT 01676140153
Sole shareholder Fedrigoni S.p.A.
Business register MB
Monza e Brianza
Comp. Reg R.E.A. N. 1871535

info.caponago@fedrigoni.com
fedrigoni.com

Production sites
Viale Industrie 30
20060 Basiano (MB), Italy
T +39 02 923 948 1
F +39 02 923 948 39

Polo Ind.le Berbentina
60041 Sassoferrato (AN), Italy
T +39 073 297 061
F +39 073 296 436

Directing and controlling by
Fiber JVCo S.p.A.

FEDRIGONI
SELF-ADHESIVES

30 June 2026

ANNEX 1.

Thermal Eco Phenol and Bisphenol free

Sales Code	Product Name
SPE4096	FRUIT TAG SILVER / THERMAL ECO BP FREE FSC™ 220
SPE4026	FRUIT TAG WHITE / THERMAL ECO BP FREE FSC™ 230
PDT4066	THERMAL ECO PHENOL FREE FSC™ / PX1 / YG60
PDT4043	THERMAL ECO PHENOL FREE FSC™ / RF20 / YG60
PDT4041	THERMAL ECO PHENOL FREE FSC™ / P1000 / YG60
PDT4042	THERMAL ECO PHENOL FREE FSC™ / FH21 / YG60
PDT4065	THERMAL ECO PHENOL FREE FSC™ / TT50L / YG60

FEDRIGONI
Self-Adhesives
Ritrama S.p.A.
Registered and head office
Offices and slitting
and distribution centers
Via Senatore Simonetta 24
20867 Caponago, Italy
T +39 02 955 459 1
F +39 02 955 459 01

Share capital
€ 9.000.000 i.v.
VAT number IT 01676140153
Sole shareholder Fedrigoni S.p.A.
Business register MB
Monza e Brianza
Comp. Reg R.E.A. N. 1871535

info.caponago@fedrigoni.com
fedrigoni.com

Production sites
Viale Industrie 30
20060 Basiano (MB), Italy
T +39 02 923 948 1
F +39 02 923 948 39

Polo Ind.le Berbentina
60041 Sassoferrato (AN), Italy
T +39 073 297 061
F +39 073 296 436

Directing and
controlling by
Fiber JVCo S.p.A.

FEDRIGONI
SELF-ADHESIVES

General Product Compliance Datasheet

Issue date: April 27, 2026

FEDRIGONI
Self-Adhesives
Ritrama S.p.A.
Registered and head office
Offices and slitting
and distribution centers
Via Senatore Simonetta 24
20867 Caponago, Italy
T +39 02 955 459 1
F +39 02 955 459 01

Share capital
€ 9.000.000 i.v.
VAT number IT 01676140153
Sole shareholder Fedrigoni S.p.A.
Business register MB
Monza e Brianza
Comp. Reg R.E.A. N. 1871535

info.caponago@fedrigoni.com
fedrigoni.com

Production sites
Viale Industrie 30
20060 Basiano (MB), Italy
T +39 02 923 948 1
F +39 02 923 948 39

Polo Ind.le Berbentina
60041 Sassoferrato (AN), Italy
T +39 073 297 061
F +39 073 296 436

Directing and
controlling by
Fiber JVCo S.p.A.

FEDRIGONI
SELF-ADHESIVES

Regulations

Reg. (EC) 1907/2006 – REACH	4
Safety Data Sheets – SDS	4
Reg. (EU) 10/2011 and Reg. (EC) 1935/2004 – Food Contact Materials	4
Reg. (EU) 528/2012 – Biocide Products Regulation	5
Dir. (EU) 2015/863 – RoHS	5
Safe Drinking Water and Toxic Enforcement Act of 1986 – California Proposition 65	5
Toxic Substances Control Act – TSCA	5
Reg. (EU) 988/2023 – General Product Safety Regulation	6
Reg. (EU) 40/2025 – Packaging and Packaging Waste Regulation, PPWR	6

Restricted substances

Allergens	7
Animal-derived substances and BSE/TSE	7
Benzophenone	7
Bisphenol A, BPA	7
Bisphenols and derivatives, hazardous	7
Chlorine-based bleaching agents (ECF/TCF)	7
Conflict minerals	7
Endocrine disruptors	7
Epoxy derivatives	8
Genetically modified organisms, GMO	8
Heavy metals	8
Halal and Kosher	8
Irradiation or ionizing radiation	8
Mineral oils (MOSH/MOAH)	9
Natural rubber / Latex	9
Nitrosamines	9
Oxo-degradable materials	9
Ozone-depleting substances	9
Per- and polyfluoroalkyl substances (PFAS)	9
Persistent organic pollutants (POPs)	10

FEDRIGONI
Self-Adhesives
Ritrama S.p.A.
Registered and head office
Offices and slitting
and distribution centers
Via Senatore Simonetta 24
20867 Caponago, Italy
T +39 02 955 459 1
F +39 02 955 459 01

Share capital
€ 9.000.000 i.v.
VAT number IT 01676140153
Sole shareholder Fedrigoni S.p.A.
Business register MB
Monza e Brianza
Comp. Reg R.E.A. N. 1871535

info.caponago@fedrigoni.com
fedrigoni.com

Production sites
Viale Industrie 30
20060 Basiano (MB), Italy
T +39 02 923 948 1
F +39 02 923 948 39

Polo Ind.le Berbentina
60041 Sassoferrato (AN), Italy
T +39 073 297 061
F +39 073 296 436

Directing and
controlling by
Fiber JVCo S.p.A.

Phthalates	10
Polycyclic Aromatic Hydrocarbons (PAH)	10
PVC	10
Synthetic polymer microparticles (“Microplastics”)	10
Vegan	10

FEDRIGONI
Self-Adhesives
Ritrama S.p.A.
Registered and head office
Offices and slitting
and distribution centers
Via Senatore Simonetta 24
20867 Caponago, Italy
T +39 02 955 459 1
F +39 02 955 459 01

Share capital
€ 9.000.000 i.v.
VAT number IT 01676140153
Sole shareholder Fedrigoni S.p.A.
Business register MB
Monza e Brianza
Comp. Reg R.E.A. N. 1871535

info.caponago@fedrigoni.com
fedrigoni.com

Production sites
Viale Industrie 30
20060 Basiano (MB), Italy
T +39 02 923 948 1
F +39 02 923 948 39

Polo Ind.le Berbentina
60041 Sassoferrato (AN), Italy
T +39 073 297 061
F +39 073 296 436

Directing and
controlling by
Fiber JVCo S.p.A.

The information herein contained is intended to advise our customers about the compliance status of products marketed by Fedrigoni Self-Adhesives in the European Union, with regard to most common regulatory topics.

Please be aware that this statement is only valid for products as such, as supplied and does not cover subsequent transformations (printing, die cutting, further coating or lamination) after which compliance needs to be reassessed: it is always a responsibility of the producer of the final item to verify its suitability for the real or foreseeable use conditions, as well as to make sure that articles meet their relevant requirements.

Reg. (EC) 1907/2006 (REACH): all products marketed by Fedrigoni Self-Adhesives in the EU comply with requirements of REACH Regulation which are relevant for *articles* and, to the best of our knowledge, do not contain any substance listed in Annex XIV, Annex XVII where applicable, or in the Candidate List of Substances of Very High Concern (SVHC) in concentration above 0.1 % (w/w) – **last update February 4th, 2026**.(*)

Products formulated with solvent-based technologies may contain low concentrations of n-hexane (CAS 110-54-3), which has been included in the Candidate List of Substances of Very High Concern (SVHC) as of February 4th, 2026. We confirm that, under standard conditions, any hexane content remains below the 0.1% w/w threshold on the final product that triggers a duty to communicate the presence of SVHCs to customers in accordance with REACH Art. 33.

(*)Please be aware that an exception to this statement is represented by products containing 4,4'-sulfonyldiphenol, or bisphenol S (BPS, CAS n. 80-09-1), included in the Candidate List of Substances of Very High Concern as of January 17th, 2023. A list of affected products is included in our declaration on SVHC, available via our website and product portal:
https://selfadhesives.fedrigoni.com/certifications/
https://myselfadhesives.fedrigoni.com/en_en/cer0002

Safety Data Sheets (SDS): all products marketed by Fedrigoni Self-Adhesives in the EU fall under the definition of *article* according to REACH Regulation. Hazard classification rules set in Reg. (EC) 1272/2008 (CLP) only apply to *chemical substances*, *mixtures*, or *explosive articles*: it is thus not possible to issue a safety data sheet for self-adhesive materials.

Reg. (EU) 10/2011 and **Reg. (EC) 1935/2004 (Food Contact Materials)**: a specific subset of products marketed by Fedrigoni Self-Adhesives in the EU is qualified for direct contact with food: for these products, the food contact status is explicitly mentioned in the regulatory section of the technical datasheet, and a declaration containing all relevant information is available upon request.

FEDRIGONI
Self-Adhesives
Ritrama S.p.A.
Registered and head office
Offices and slitting
and distribution centers
Via Senatore Simonetta 24
20867 Caponago, Italy
T +39 02 955 459 1
F +39 02 955 459 01

Share capital
€ 9.000.000 i.v.
VAT number IT 01676140153
Sole shareholder Fedrigoni S.p.A.
Business register MB
Monza e Brianza
Comp. Reg R.E.A. N. 1871535

info.caponago@fedrigoni.com
fedrigoni.com

Production sites
Viale Industrie 30
20060 Basiano (MB), Italy
T +39 02 923 948 1
F +39 02 923 948 39

Polo Ind.le Berbentina
60041 Sassoferrato (AN), Italy
T +39 073 297 061
F +39 073 296 436

Directing and
controlling by
Fiber JVCo S.p.A.

Please be aware that, even in the absence of such information, self-adhesive products can be used in all food applications where a functional barrier as defined by Reg. (EU) 10/2011 exists between the product and the food.

Reg. (EU) 528/2012 (Biocide Products Regulation): all products marketed by Fedrigoni Self-Adhesives in the EU fall out of scope of the abovementioned Regulation. Preservatives or similar biocide substances can be used in small amounts by our raw material suppliers, for instance to improve the shelf life of water-based adhesives: however, no biocide is used to treat nor intentionally incorporated in our products, which based on current guidance provided by the European Commission are not considered *treated articles*.

Dir. (EU) 2015/863 (RoHS): all products marketed by Fedrigoni Self-Adhesives in the EU fall out of scope of the abovementioned Directive, which specifically covers *electrical and electronic equipment*: nonetheless, we can confirm that none of the restricted substances is intentionally added above the concentration limits therein indicated.

Safe Drinking Water and Toxic Enforcement Act of 1986 (California Proposition 65): none of the substances known to the State of California to cause cancer or reproductive toxicity, according to the latest version of the substance list, is intentionally added in any product marketed by Fedrigoni Self-Adhesives in the EU.(*)

Please be aware that our products may contain technically unavoidable traces of some of these substances, such as residual solvents in solvent-based adhesives.

We expect that, even where traces are present, applicable safe harbor levels would not be exceeded in the foreseeable use conditions: however, since requirements of Proposition 65 are limited to State of California and have no direct relevance in other countries, compliance should in any case be verified by whoever introduces the article in the Californian market.

(*)Exceptions to this statement are represented by:

1) Products containing 4,4'- sulfonyldiphenol, or bisphenol S (BPS, CAS n. 80-09-1), included in the List of Substances known to the State of California to cause cancer or reproductive toxicity as of December 29th, 2023. A list of affected products is included in our declaration on SVHC, available via our website and product portal:
   https://selfadhesives.fedrigoni.com/certifications/
   https://myselfadhesives.fedrigoni.com/en_en/cer0002
2) Products containing specific phthalate additives in a PVC film, the latter being always explicitly mentioned in the product description or technical datasheet: for these products, a statement on phthalate content can be provided upon request.

Toxic Substances Control Act (TSCA): all chemicals in used in the manufacturing of products marketed by Fedrigoni Self-Adhesives in the EU are listed on the TSCA inventory.

FEDRIGONI
Self-Adhesives
Ritrama S.p.A.
Registered and head office
Offices and slitting
and distribution centers
Via Senatore Simonetta 24
20867 Caponago, Italy
T +39 02 955 459 1
F +39 02 955 459 01

Share capital
€ 9.000.000 i.v.
VAT number IT 01676140153
Sole shareholder Fedrigoni S.p.A.
Business register MB
Monza e Brianza
Comp. Reg R.E.A. N. 1871535

info.caponago@fedrigoni.com
fedrigoni.com

Production sites
Viale Industrie 30
20060 Basiano (MB), Italy
T +39 02 923 948 1
F +39 02 923 948 39

Polo Ind.le Berbentina
60041 Sassoferrato (AN), Italy
T +39 073 297 061
F +39 073 296 436

Directing and
controlling by
Fiber JVCo S.p.A.

None of the substances identified as Persistent, Bioaccumulative, and Toxic (PBT) under TSCA Section 6(h), namely

Phenol, isopropylated phosphate (PIP (3:1)) (CAS 68937-41-7)
Decabromodiphenyl ether (decaBDE) (CAS 1163-19-5)
2,4,6-tris(tert-butyl)phenol (2,4,6-TTBP) (CAS 732-26-3)
Hexachlorobutadiene (HCBD) (CAS 87-68-3)
Pentachlorothiophenol (PCTP) (CAS 133-49-3)

is intentionally added to any of these products.

Please note that requirements of the Toxic Substances Control Act are limited to the United States of America and have no direct relevance in other countries: compliance should in any case be verified by whoever introduces the article in the U.S. market.

Reg. (EU) 988/2023 (General Product Safety Regulation): none of the products marketed by Fedrigoni Self-Adhesives in the EU, as such, falls in the scope of the abovementioned Regulation, which specifically applies to *consumer products*.

None of these products is intended for consumer use as it is nor, in foreseeable circumstances, might be used by consumers without further processing and transformation by other economic operators.

When relevant, the responsibility to carry out a risk assessment would lie with actors further down the supply chain: in this regard, we confirm our availability to support our customers and end-users with all information on our materials needed to assess the safety of their products.

Reg. (EU) 40/2025 (Packaging and Packaging Waste Regulation, PPWR): for self-adhesive materials, the PPWR requirements applicable at product level are limited to substance-related provisions, notably restrictions on heavy metals and per- and polyfluoroalkyl substances (PFAS). In this respect, compliance of Fedrigoni Self-Adhesives products is ensured as specified in the “Heavy Metals” and “PFAS” sections of this document.

Please note that the core PPWR obligations - such as recyclability, recycled content, design-for-recycling, and recycled-at-scale criteria - apply to the finished packaging placed on the EU market, rather than to individual packaging components assessed in isolation. Consequently, overall PPWR conformity must be evaluated and declared by the manufacturer or economic operator responsible for placing the final packaging on the market.

That said, Fedrigoni Self-Adhesives has developed a dedicated portfolio of technical solutions designed to support PPWR-compliant packaging, depending on the specific application. These include wash-off constructions for glass and PET, recyclability-aligned solutions for PP and PE packaging, compostable

FEDRIGONI
Self-Adhesives
Ritrama S.p.A.
Registered and head office
Offices and slitting
and distribution centers
Via Senatore Simonetta 24
20867 Caponago, Italy
T +39 02 955 459 1
F +39 02 955 459 01

Share capital
€ 9.000.000 i.v.
VAT number IT 01676140153
Sole shareholder Fedrigoni S.p.A.
Business register MB
Monza e Brianza
Comp. Reg R.E.A. N. 1871535

info.caponago@fedrigoni.com
fedrigoni.com

Production sites
Viale Industrie 30
20060 Basiano (MB), Italy
T +39 02 923 948 1
F +39 02 923 948 39

Polo Ind.le Berbentina
60041 Sassoferrato (AN), Italy
T +39 073 297 061
F +39 073 296 436

Directing and
controlling by
Fiber JVCo S.p.A.

constructions, and other application-specific developments. Further details are available at: https://selfadhesives.fedrigoni.com/sustainability/sustainable-solutions/.

As regards specific substances of concern, to the best of our current knowledge and with respect to face material and adhesive only, we can hereby confirm the following information referred to all products marketed by Fedrigoni Self-Adhesives in the EU:

Allergens: no such substance, as listed on Annex II of Reg. (EU) 2011/1169, is intentionally added.

Animal-derived substances: no such substance is used by Fedrigoni Self-Adhesives or our raw material suppliers: however, according to information provided by our raw material suppliers, animal-derived substances, such as widely used chemical additives originated from tallow, may be employed further up the supply chain. We confirm that, to the best of our knowledge, all these substances fulfil relevant regulatory requirements, and that all products we supply can be considered safe with regards to **BSE/TSE**.

Benzophenone: no such substance is intentionally added.

Bisphenol A (BPA): no such substance is intentionally added.

Bisphenols and derivatives, hazardous as defined by Reg. (EU) 2024/3190: no such substance is intentionally added.(*)

(*)Please be aware that an exception to this statement is represented by products containing 4,4'-sulfonyldiphenol, or bisphenol S (BPS, CAS n. 80-09-1), included in the Candidate List of Substances of Very High Concern as of January 17th, 2023. A list of affected products is included in our declaration on SVHC, available via our website and product portal:
https://selfadhesives.fedrigoni.com/certifications/
https://myselfadhesives.fedrigoni.com/en_en/cer0002

Chlorine-based bleaching agents: paper used in products supplied by Fedrigoni Self-Adhesives is manufactured using cellulose fibre bleached with methods that are **elemental chlorine-free (ECF)**, although totally chlorine-free (TCF) methods are also used to a minor extent.

Conflict minerals: no such substance, as defined by the U.S. "Dodd-Frank Wall Street Reform and Consumer Protection Act", and by Reg. (EU) 2017/821, such as gold, tin, tantalum, tungsten, or their associated ores, is intentionally added.

Endocrine disruptors: no substance included in *List I: Substances identified as endocrine disruptors at EU level* is intentionally added.(*)

FEDRIGONI
Self-Adhesives
Ritrama S.p.A.
Registered and head office
Offices and slitting
and distribution centers
Via Senatore Simonetta 24
20867 Caponago, Italy
T +39 02 955 459 1
F +39 02 955 459 01

Share capital
€ 9.000.000 i.v.
VAT number IT 01676140153
Sole shareholder Fedrigoni S.p.A.
Business register MB
Monza e Brianza
Comp. Reg R.E.A. N. 1871535

info.caponago@fedrigoni.com
fedrigoni.com

Production sites
Viale Industrie 30
20060 Basiano (MB), Italy
T +39 02 923 948 1
F +39 02 923 948 39

Polo Ind.le Berbentina
60041 Sassoferrato (AN), Italy
T +39 073 297 061
F +39 073 296 436

Directing and controlling by
Fiber JVCo S.p.A.

Furthermore, none of the substances considered similarly concerning and included in lists established by **French AGEC law n°2020-105**, as amended by *Arrêté du 30 août 2023* and *Arrêté du 28 sept 2023*, namely

Phtalate de diisooctyle (DIOP) (CAS 27554-26-3)
1,3-benzenediol (Resorcinol) (CAS 108-46-3)
Mancozeb (CAS 8018-01-7)
Cholecalciferol (CAS 67-97-0)

is intentionally added above the thresholds therein specified.

(*)Please be aware that an exception to this statement is represented by products containing 4,4'-sulfonyldiphenol, or bisphenol S (BPS, CAS n. 80-09-1), included in the Candidate List of Substances of Very High Concern as of January 17th, 2023. A list of affected products is included in our declaration on SVHC, available via our website and product portal:
https://selfadhesives.fedrigoni.com/certifications/
https://myselfadhesives.fedrigoni.com/en_en/cer0002

Epoxy derivatives: no such substance, as defined by Reg. (EC) 2005/1895 (BADGE, BFDGE, NOGE), is intentionally added.

Genetically modified organisms (GMO): no such substance is intentionally added, nor is any DNA intended to be present in the product. However, according to the information provided by our raw material suppliers, it is not possible to rule out the use of GMOs further up the supply chain, specifically in the manufacturing of specific substances and additives: further information in this sense can be provided upon request.

Heavy metals: no such substance, as specified in Dir. 94/62/EC (and amendments up to Dir. (EU) 2018/852), and Model Toxics in Packaging Legislation (CONEG), namely cadmium, chromium (VI), lead and mercury, is intentionally added above the specific concentration limits therein indicated.

Halal and **Kosher**: products can only be claimed Halal or Kosher in presence of a third-party certification: please be aware that Fedrigoni Self-Adhesives does not currently certify any supplied product according to Halal or Kosher requirements. Please see "Animal-derived substances" for further information.

Irradiation or **ionizing radiation**: no such process, intended as exposure to radiation for the purpose of sterilization or preservation, is carried out.

Please note that *Corona treatment* or analogous processes might be employed within the manufacturing of our products or raw materials: such surface treatments are customary for the plastic and paper industries, and deemed irrelevant for the safety profile of finished products in their intended applications.

FEDRIGONI
Self-Adhesives
Ritrama S.p.A.
Registered and head office
Offices and slitting
and distribution centers
Via Senatore Simonetta 24
20867 Caponago, Italy
T +39 02 955 459 1
F +39 02 955 459 01

Share capital
€ 9.000.000 i.v.
VAT number IT 01676140153
Sole shareholder Fedrigoni S.p.A.
Business register MB
Monza e Brianza
Comp. Reg R.E.A. N. 1871535

info.caponago@fedrigoni.com
fedrigoni.com

Production sites
Viale Industrie 30
20060 Basiano (MB), Italy
T +39 02 923 948 1
F +39 02 923 948 39

Polo Ind.le Berbentina
60041 Sassoferrato (AN), Italy
T +39 073 297 061
F +39 073 296 436

Directing and
controlling by
Fiber JVCo S.p.A.

Mineral oils (MOSH/MOAH): we inform you that mineral oils can be contained as a fundamental ingredient of many hot-melt pressure-sensitive adhesives, with few exceptions. Please note that, to date, we are not aware of any regulatory restriction on these substances whose scope also includes adhesives: specifically, French law (No. 2020-105 (AGEC), Decree No. 2020-1725, Decree of April 13th, 2022) mentions requirements for mineral oils in printing inks, thus not including adhesives. Statements on the mineral oil content of specific adhesive grades used in our products can be available upon request.

Natural rubber / Latex: no such substance is intentionally added.

Nitrosamines: no such substance is intentionally added.

Oxo-degradable materials: no such substance is intentionally added.

Ozone-depleting substances: no such substance, as prohibited by Reg. (EU) 2024/590 repealing Reg. (EC) 2009/1005, is intentionally added.

Per- and polyfluoroalkyl substances (PFAS): no PFAS currently restricted under the Candidate List of Substances of Very High Concern (SVHC) or under Regulation (EU) 2019/1021 on persistent organic pollutants are intentionally added to Fedrigoni Self-Adhesives products.

Please be aware that the regulatory framework applicable to PFAS is evolving: the restriction proposal submitted to the European Chemicals Agency (ECHA) in January 2023 may extend restrictions to a wider range of PFAS, while the thresholds introduced by the Packaging and Packaging Waste Regulation (PPWR), applicable from August 12th, 2026, may impose additional requirements for food-packaging applications. Fedrigoni Self-Adhesives, together with its raw material suppliers, is committed to ensuring a timely phase-out of PFAS where relevant, as well as implementing appropriate due diligence to guarantee compliance of affected products.

Under the PPWR, PFAS compliance must be verified at the level of the finished packaging unit. As a packaging material supplier, and not a final packaging manufacturer, it is therefore not fully established whether Fedrigoni Self-Adhesives is required to provide analytical data on total fluorine: nevertheless, as part of our due diligence, we are carrying out PFAS screening on selected ranges, and materials analysed so far have shown total fluorine levels below 50 ppm. Note that this information is indicative only and provided without warranty for specific applications: further compliance-related details will be shared ahead of the entry into force of the applicable limits.

An exception is represented by specific premium greaseproof papers, where fluorinated substances are used to achieve functional performance. For these products, fluorine-free coated alternatives are already available, while additional like-for-like solutions are under development in close cooperation with our raw material suppliers. Customers supplied with these ranges have been, and continue to be, timely informed of developments.

FEDRIGONI
Self-Adhesives
Ritrama S.p.A.
Registered and head office
Offices and slitting
and distribution centers
Via Senatore Simonetta 24
20867 Caponago, Italy
T +39 02 955 459 1
F +39 02 955 459 01

Share capital
€ 9.000.000 i.v.
VAT number IT 01676140153
Sole shareholder Fedrigoni S.p.A.
Business register MB
Monza e Brianza
Comp. Reg R.E.A. N. 1871535

info.caponago@fedrigoni.com
fedrigoni.com

Production sites
Viale Industrie 30
20060 Basiano (MB), Italy
T +39 02 923 948 1
F +39 02 923 948 39

Polo Ind.le Berbentina
60041 Sassoferrato (AN), Italy
T +39 073 297 061
F +39 073 296 436

Directing and controlling by
Fiber JVCo S.p.A.

Persistent organic pollutants (POPs): no such substance, as listed in Annex I of Reg. (EU) 2019/1021, is intentionally added.

Phthalates: no such substance, as currently restricted by Reg. (EC) 1907/2006 (REACH) or Dir. (EU) 2015/863 (RoHS), is intentionally added.(*)

Please be aware that traces of phthalates may be present in products containing a PE or PP film, as impurities from the catalytic system used in the manufacturing of the base polyolefin resins.

(*)Other non-restricted phthalates may be present in products containing a PVC film, the latter being always explicitly mentioned in the product description or technical datasheet: for these products, a statement on phthalate content can be provided upon request.

Polycyclic Aromatic Hydrocarbons (PAH): no such substance is intentionally added.

PVC: unless explicitly mentioned in the product description or technical datasheet, no such substance is intentionally added.

Synthetic polymer microparticles ("Microplastics"): no such substance, as defined by Reg. (EU) 2023/2055, is intentionally added**.**

Vegan: products can only be claimed Vegan in presence of a third-party certification: please be aware that Fedrigoni Self-Adhesives does not currently certify any supplied product according to Vegan requirements. Please see "Animal-derived substances" for further information.

This information is provided to the best of our knowledge, and mostly on the basis of declarations from our raw materials' suppliers.

Please note that, according to the generally acknowledged rules of technology, the contamination with traces of unwanted components cannot be completely ruled out: Fedrigoni Self-Adhesives does not specifically analyse for the presence of all abovementioned substances, and thus it is not possible to guarantee their absence or concentration below any specific threshold value.

This statement is valid for products as such, as supplied and does not cover subsequent transformations (printing, die cutting, further coating or lamination) after which the suitability for the required use needs to be reassessed: it is always a responsibility of the producer of the final item to verify its suitability for the real or foreseeable use conditions, as well as to make sure that articles meet their relevant requirements.

FEDRIGONI
Self-Adhesives
Ritrama S.p.A.
Registered and head office
Offices and slitting
and distribution centers
Via Senatore Simonetta 24
20867 Caponago, Italy
T +39 02 955 459 1
F +39 02 955 459 01

Share capital
€ 9.000.000 i.v.
VAT number IT 01676140153
Sole shareholder Fedrigoni S.p.A.
Business register MB
Monza e Brianza
Comp. Reg R.E.A. N. 1871535

info.caponago@fedrigoni.com
fedrigoni.com

Production sites
Viale Industrie 30
20060 Basiano (MB), Italy
T +39 02 923 948 1
F +39 02 923 948 39

Polo Ind.le Berbentina
60041 Sassoferrato (AN), Italy
T +39 073 297 061
F +39 073 296 436

Directing and
controlling by
Fiber JVCo S.p.A.

FEDRIGONI
SELF-ADHESIVES

19th June 2025

Statement – Recyclability Evaluation according to ATICELCA 501:2019

Product:
PCD0052 COATED 80 FSC™ / P1000 / YG60

This statement specifies the results of a recyclability assessment carried out on the abovementioned product, according to the following references:

- UNI 11743:2019 – Paper and board - Determination of recyclability parameters of cellulose-based materials and products
- ATICELCA 501:2019 – Assessment of the level of recyclability of predominantly cellulosic materials and products

The assessment relies on parameters which are evaluated on a laboratory scale, simulating the main phases of an industrial paper recycling process.

The abovementioned product is intended to be recycled together with a broader recyclable paper packaging. Based on this consideration, and excluding the liner, we confirm that this product can sustain the following Recyclability Level:

Level C

when it constitutes less than **1.0%** of the weight of a "A+ Level" recyclable paper packaging.

As an indication, this would correspond to a 30x40 mm label on a small 400 gsm cardboard box (80x110x20 mm).

This statement is valid for the product as such, as supplied and does not cover subsequent transformations (printing, die cutting, further coating or lamination) after which suitability for the required use needs to be reassessed.

It is always a responsibility of the final user or the producer of the final item to verify that articles meet their relevant requirements.

FEDRIGONI
Self-Adhesives
Ritrama S.p.A.
Registered and head office
Offices and slitting
and distribution centers
Via Senatore Simonetta 24
20867 Caponago, Italy
T +39 02 955 459 1
F +39 02 955 459 01

Share capital
€ 9.000.000 i.v.
VAT number IT 01676140153
Sole shareholder Fedrigoni S.p.A.
Business register MB
Monza e Brianza
Comp. Reg R.E.A. N. 1871535

info.caponago@fedrigoni.com
fedrigoni.com

Production sites
Viale Industrie 30
20060 Basiano (MB), Italy
T +39 02 923 948 1
F +39 02 923 948 39

Polo Ind.le Berbentina
60041 Sassoferrato (AN), Italy
T +39 073 297 061
F +39 073 296 436

Directing and controlling by
Fiber JVCo S.p.A.

FEDRIGONI
SELF-ADHESIVES

27th June 2025

Statement – Recyclability Evaluation according to ATICELCA 501:2019

Product:
PCD0584 COATED 80 FSC™ / FH21 / YG60

This statement specifies the results of a recyclability assessment carried out on the abovementioned product, according to the following references:

- UNI 11743:2019 – Paper and board - Determination of recyclability parameters of cellulose-based materials and products
- ATICELCA 501:2019 – Assessment of the level of recyclability of predominantly cellulosic materials and products

The assessment relies on parameters which are evaluated on a laboratory scale, simulating the main phases of an industrial paper recycling process.

The abovementioned product is intended to be recycled together with a broader recyclable paper packaging. Based on this consideration, and excluding the liner, we confirm that this product can sustain the following Recyclability Level:

Level B

when it constitutes less than **1.0%** of the weight of a "A+ Level" recyclable paper packaging.

As an indication, this would correspond to a 30x40 mm label on a small 400 gsm cardboard box (80x110x20 mm).

This statement is valid for the product as such, as supplied and does not cover subsequent transformations (printing, die cutting, further coating or lamination) after which suitability for the required use needs to be reassessed.

It is always a responsibility of the final user or the producer of the final item to verify that articles meet their relevant requirements.

FEDRIGONI
Self-Adhesives
Ritrama S.p.A.
Registered and head office
Offices and slitting
and distribution centers
Via Senatore Simonetta 24
20867 Caponago, Italy
T +39 02 955 459 1
F +39 02 955 459 01

Share capital
€ 9.000.000 i.v.
VAT number IT 01676140153
Sole shareholder Fedrigoni S.p.A.
Business register MB
Monza e Brianza
Comp. Reg R.E.A. N. 1871535

info.caponago@fedrigoni.com
fedrigoni.com

Production sites
Viale Industrie 30
20060 Basiano (MB), Italy
T +39 02 923 948 1
F +39 02 923 948 39

Polo Ind.le Berbentina
60041 Sassoferrato (AN), Italy
T +39 073 297 061
F +39 073 296 436

Directing and controlling by
Fiber JVCo S.p.A.

RecyClass

LETTER OF COMPATIBILITY

DESIGN FOR RECYCLING

SGS ICS Italia S.r.l. assessed the recyclability of the semi-finished-product described underneath. A semi-finished packaging is the packaging's body or one of its main components (e.g. dispenser, closure system) without all its final elements (e.g. barrier, labels, artwork, etc). The analysis was done conform to the RecyClass Recyclability Methodology (2.3 February 2024) and the Design for Recycling Guidelines (July 2024). Based on the results of our judgement we are confident to grant you this letter of compatibility.

Please be aware that changes in design, print, used materials and/or the effect of product-content or residue, might change the outcome of the assessment of a final packaging. We advise you to have the final/complete product packaging certified.

GRANTED TO:

Fedrigoni S.p.A.
Via Senatore Simonetta, 24
20867 - Caponago (MB)
Italy

PACKAGING:

FLM1517_PP TCX GLOSS WHITE CAV 60_AP901
Bottle
PE rigid

RESULT

We confirm that the semi-finished product we have assessed, is compatible with readily available sorting & recycling technologies commonly used at industrial scale in the recycling sector in Europe.
As an intermediate result, we have established that this semi-finished product is sorted into the HDPE containers-fraction.

THE RECYCLASS RECYCLABILITY OF THIS SEMI-FINISHED PRODUCT IS CALCULATED AS CLASS B.

DISCLAIMER

At this stage, the use of the RecyClass logo is prohibited. The use of any claims on the recyclability of the semi-finished product are not supported by RecyClass. To use the logo and/or to have RecyClass endorsement, you must submit the final packaging for certification. Indeed, it is the final packaging (including its decorative elements and product-residue) that will enter the recycling system.
This letter of compatibility is valid until 19/02/2028, three years after the release of the audit report.

Audit Report and Certificate Code:
018-fed-sg

Date of issue of Letter:
20/02/2025

Period of validity*:
20/02/2025 - 19/02/2028

*Validity conditions and terms of use may be found in the Audit Scheme documents.

CERTIFIED BY: by delegation

Mr. Andrea Vaccher

SGS ICS Italia S.r.l.
via Caldera, 21
20153 - Milano
Italy

RecyClass

AUDITED PACKAGING

Audit Report and Certificate Code:
018-fed-sg

Date of issue of Letter:
20/02/2025

Period of validity*:
20/02/2025 - 19/02/2028

*Validity conditions and terms of use may be found in the Audit Scheme documents.

CERTIFIED BY: by delegation

Mr. Andrea Vaccher

SGS ICS Italia S.r.l.
via Caldera, 21
20153 - Milano
Italy

RecyClass

LETTER OF COMPATIBILITY

DESIGN FOR RECYCLING

SGS ICS Italia S.r.l. assessed the recyclability of the semi-finished-product described underneath. A semi-finished packaging is the packaging's body or one of its main components (e.g. dispenser, closure system) without all its final elements (e.g. barrier, labels, artwork, etc). The analysis was done conform to the RecyClass Recyclability Methodology (2.3 February 2024) and the Design for Recycling Guidelines (July 2024). Based on the results of our judgement we are confident to grant you this letter of compatibility.

Please be aware that changes in design, print, used materials and/or the effect of product-content or residue, might change the outcome of the assessment of a final packaging. We advise you to have the final/complete product packaging certified.

GRANTED TO:

Fedrigoni S.p.A.
Via Senatore Simonetta, 24
20867 - Caponago (MB)
Italy

PACKAGING:

FLM4139_PP TCX GLOSS WHITE 60_FH21
Bottle
PE rigid

RESULT

We confirm that the semi-finished product we have assessed, is compatible with readily available sorting & recycling technologies commonly used at industrial scale in the recycling sector in Europe.
As an intermediate result, we have established that this semi-finished product is sorted into the HDPE containers-fraction.

THE RECYCLASS RECYCLABILITY OF THIS SEMI-FINISHED PRODUCT IS CALCULATED AS CLASS B.

DISCLAIMER

At this stage, the use of the RecyClass logo is prohibited. The use of any claims on the recyclability of the semi-finished product are not supported by RecyClass. To use the logo and/or to have RecyClass endorsement, you must submit the final packaging for certification. Indeed, it is the final packaging (including its decorative elements and product-residue) that will enter the recycling system.
This letter of compatibility is valid until 19/02/2028, three years after the release of the audit report.

Audit Report and Certificate Code:
016-fed-sg

Date of issue of Letter:
20/02/2025

Period of validity*:
20/02/2025 - 19/02/2028

*Validity conditions and terms of use may be found in the Audit Scheme documents.

CERTIFIED BY: by delegation

Mr. Andrea Vaccher

SGS ICS Italia S.r.l.
via Caldera, 21
20153 - Milano
Italy

RecyClass

AUDITED PACKAGING

Audit Report and Certificate Code:
016-fed-sg

Date of issue of Letter:
20/02/2025

Period of validity*:
20/02/2025 - 19/02/2028

*Validity conditions and terms of use may be found in the Audit Scheme documents.

CERTIFIED BY: by delegation

Mr. Andrea Vaccher

SGS ICS Italia S.r.l.
via Caldera, 21
20153 - Milano
Italy

RecyClass

LETTER OF COMPATIBILITY

DESIGN FOR RECYCLING

SGS ICS Italia S.r.l. assessed the recyclability of the semi-finished-product described underneath. A semi-finished packaging is the packaging's body or one of its main components (e.g. dispenser, closure system) without all its final elements (e.g. barrier, labels, artwork, etc). The analysis was done conform to the RecyClass Recyclability Methodology (2.3 February 2024) and the Design for Recycling Guidelines (July 2024). Based on the results of our judgement we are confident to grant you this letter of compatibility.

Please be aware that changes in design, print, used materials and/or the effect of product-content or residue, might change the outcome of the assessment of a final packaging. We advise you to have the final/complete product packaging certified.

GRANTED TO:

Fedrigoni S.p.A.
Via Senatore Simonetta, 24
20867 - Caponago (MB)
Italy

PACKAGING:

FLM1399_PP TCX GLOSS WHITE CAV 60_RP1101
Bottle
PE rigid

RESULT

We confirm that the semi-finished product we have assessed, is compatible with readily available sorting & recycling technologies commonly used at industrial scale in the recycling sector in Europe.
As an intermediate result, we have established that this semi-finished product is sorted into the HDPE containers-fraction.

THE RECYCLASS RECYCLABILITY OF THIS SEMI-FINISHED PRODUCT IS CALCULATED AS CLASS B.

DISCLAIMER

At this stage, the use of the RecyClass logo is prohibited. The use of any claims on the recyclability of the semi-finished product are not supported by RecyClass. To use the logo and/or to have RecyClass endorsement, you must submit the final packaging for certification. Indeed, it is the final packaging (including its decorative elements and product-residue) that will enter the recycling system.
This letter of compatibility is valid until 19/02/2028, three years after the release of the audit report.

Audit Report and Certificate Code:
017-fed-sg

Date of issue of Letter:
20/02/2025

Period of validity*:
20/02/2025 - 19/02/2028

*Validity conditions and terms of use may be found in the Audit Scheme documents.

CERTIFIED BY: by delegation

Mr. Andrea Vaccher
SGS ICS Italia S.r.l.
via Caldera, 21
20153 - Milano
Italy

RecyClass

AUDITED PACKAGING

Audit Report and Certificate Code:
017-fed-sg

Date of issue of Letter:
20/02/2025

Period of validity*:
20/02/2025 - 19/02/2028

*Validity conditions and terms of use may be found in the Audit Scheme documents.

CERTIFIED BY: by delegation

Mr. Andrea Vaccher

SGS ICS Italia S.r.l.
via Caldera, 21
20153 - Milano
Italy

RecyClass

c/o Plastics Recyclers Europe
Avenue de Broqueville 12
1150 Brussels, Brussels

Phone: +32 2 786 39 08
info@recyclass.eu
www.recyclass.eu

Fedrigoni

RECYCLASS TECHNOLOGY APPROVAL

Brussels, 07 September 2023
Reviewed: Brussels, 28 December 2023

DISCLAIMER

RecyClass recognition applies only to Fedrigoni 'PP White with acrylic emulsion PSA' technology reported in Annex I. The recyclability assessment therefore does not refer to the testing of a specific packaging using this self-adhesive label. Any specific packaging using this self-adhesive label would need to be tested individually to demonstrate that the system of resin, adjuvants, label, closure, and printing conforms to the RecyClass Recyclability Evaluation Protocol for PP containers, and that it is sorted in the PP rigid stream at the state-of-art sorting plants in Europe.
Publication of results of testing of this technology MUST clearly include all the conditions listed in the approval letter. Partial reporting of the conditions is forbidden.
Additionally, any change in the formulation of the technology must be communicated to the Technical Committee which will reassess the approval of the technology.

The RecyClass PP Technical Committee was requested to carry out an assessment of the technology 'PP White with acrylic emulsion PSA' by Fedrigoni to verify its impact on the quality of recycled PP containers.

The technology is a white PP-based self-adhesive label applied on a natural PP bottle, without cap. The self-adhesive labels are composed by a PP facestock and an acrylic emulsion adhesive. The adhesive represents about 1 % of the total weight of the tested bottle whilst the PP facestock accounts for 2.2 wt%. The labels were tested unprinted.

According to the results that were obtained from the laboratory tests done by the Institut für Kunststofftechnologie und -recycling (IKTR), carried out as per the Recyclability Evaluation Protocol for PP containers, 'PP White with acrylic emulsion PSA' technology is limited compatible with coloured PP recycling.

Based on these results, RecyClass acknowledges that Fedrigoni 'PP White with acrylic emulsion PSA' technology will have a limited impact on the current European coloured PP containers recycling and provided that the full packaging using this self-adhesive label is designed under the following conditions:

a) The packaging is made of PP:
b) The facestock of the self-adhesive label(s) applied on the packaging is made of clear or white PP;

c) The amount of acrylic emulsion adhesive represents 1 % of the total weight of the packaging, or less;
d) The final density of the packaging is lower than 1 g/cm^3;
e) Any additional components, such as closure system are made of PP, preferably clear or white;
f) Any additional component or features (e.g. inks) of the packaging must be compliant with the corresponding RecyClass Design for Recycling Guidelines[1].

RecyClass concludes that Fedrigoni 'PP White with acrylic emulsion PSA' technology as per current market conditions and knowledge, is limited compatible with the existing European industrial recycling processes for coloured PP containers. Indeed, the recycled plastic generated after the recycling process was successfully tested in high-value application such as PP bottles up to 50 % concentration[2].

In regard to RecyClass Recyclability Certification, the present limited compatibility with coloured PP containers recycling approval delivered to Fedrigoni 'PP White with acrylic emulsion PSA' technology, means that a packaging containing this technology, as mentioned in the aforementioned conditions will be penalised with one Recyclability Class deduction. Moreover, the amount of recyclable PE will impact the final Recyclability Class obtained during Recyclability Certification and should be kept above 95 % or 90 % in the final packaging to maximise chances to get a Recyclability Certificate with a Class B or C, respectively[3]. Also, it is noteworthy that the presence of additional packaging features could impact the certification process.

It should be noteworthy that application of extensive printing on the non-separable Pressure Sensitive Label reduces the quality of recycled plastic generated by the container, by limiting its compatibility with HDPE recycling. Therefore, the applicant is encouraged to improve the Pressure-Sensitive Label construction to allow its removal during the recycling process, based on RecyClass HDPE Technical Committee recommendation.

About RecyClass
RecyClass is a non-profit, cross-industry initiative advancing recyclability, bringing transparency to the origin of plastic waste and establishing a harmonized approach toward recycled plastic calculation & traceability in Europe. RecyClass develops Recyclability Evaluation Protocols and scientific testing methods for innovative plastic packaging materials which serve as the base for the Design for Recycling Guidelines and the RecyClass Online Tool. RecyClass established Recyclability Certifications for plastic packaging, Recycling Process Certification and Recycled Plastics Traceability Certification for plastic products.

RecyClass – Plastic Future is Circular

Follow the latest news on RecyClass channels: LinkedIn | Twitter | YouTube

Contact : Jean-Emile.Potaufeux@plasticsrecyclers.eu, www.recyclass.eu

[1] Design for Recycling Guidelines - RecyClass

[2] Recyclability Evaluation Protocol for PP containers

[3] RecyClass Recyclability Certification

c/o Plastics Recyclers Europe
Avenue de Broqueville 12
1150 Brussels, Brussels

Phone : +32 2 786 39 08
info@recyclass.eu
www.recyclass.eu

Annex I

Figure 1. 'PP White with acrylic emulsion PSA' *by Fedrigoni.*

c/o Plastics Recyclers Europe
Avenue de Broqueville 12
1150 Brussels, Brussels

Phone : +32 2 786 39 08
info@recyclass.eu
www.recyclass.eu

ETPA Statement on EU Regulation 2024/3190

Clarification on the Use of Bisphenol S (BPS) in Thermal Paper for Food Contact Applications

June 2026

The European Thermal Paper Association (ETPA) has become aware of concerns in the market that Bisphenol S (BPS) may no longer be used in thermal paper for food contact applications as of 20 July 2026. The ETPA wishes to address these concerns in the context of the applicable regulatory framework under Regulation (EU) 2024/3190[1].

Regulatory Background

Commission Regulation (EU) 2024/3190 entered into force on 20 January 2025, banning the use of Bisphenol A (BPA) and other hazardous bisphenols in the manufacture of various products intended to come into contact with food. The ban on BPA in certain food contact materials has no direct effect on thermal paper producers, due to the already existing restriction of BPA in thermal paper under REACH.

The Regulation does not ban the use of bisphenols other than BPA as of 20 July 2026. The 18-month transition period expiring on that date relates specifically to the placing on the market of single-use food contact materials containing BPA. It does not impose a prohibition on the use of BPS in food contact materials on that date.

For bisphenols other than BPA, such as BPS, the Regulation tasks the European Food Safety Authority (EFSA), in collaboration with the European Chemicals Agency (ECHA), with the drafting of guidelines relating to the authorisation of those substances in food contact materials. Such applications can only be filed once EFSA has published these guidelines, which is expected by January 2027[2]. As of the date of this statement, EFSA has not yet published its final guidance; only a draft is available[3].

Until the publication of the guidelines, there is no possibility to apply for an authorisation, and BPS can continue to be used in food contact materials. The European Commission will then decide upon any such applications by the end of 2027 at the earliest, more likely in 2028. Until such time, BPS can still be used in food contact materials.

Position of the ETPA

The ETPA confirms that:

- BPS can continue to be lawfully used in thermal paper coatings for food contact applications. The authorisation process under Regulation (EU) 2024/3190 is not expected to conclude before the end of 2027 at the earliest.
- Under REACH, there is currently no restriction on the use of BPS in thermal paper, provided the applicable information and notification requirements are complied with.

[1] Commission Regulation (EU) 2024/3190 of 19 December 2024 on the use of bisphenol A (BPA) and other bisphenols and bisphenol derivatives with harmonised classification for specific hazardous properties in certain materials and articles intended to come into contact with food.
[2] https://www.efsa.europa.eu/en/topics/topic/bisphenol.
[3] https://connect.efsa.europa.eu/RM/s/consultations/publicconsultation2/a0lTk000007q5h7/pc1873.

- The estimated regulatory timeline set out in this statement is consistent with the position previously communicated by the ETPA in June 2025 and remains valid as at the date of this publication.

Next Steps

The ETPA is closely monitoring any regulatory changes impacting the thermal paper sector and is committed to communicating transparently with its customers about new developments. ETPA members will continue to take the necessary steps to comply with their obligations and to ensure the highest level of safety in the manufacturing processes of thermal paper.

For more information about ETPA please visit our website: https://etpassociation.org

Contact: mail@etpassociation.org

FEDRIGONI
SELF-ADHESIVES

30 June 2026

Navigating the EU Bisphenol Regulation: Choosing the Right Thermal Labelling Solution for Food Applications

Dear Valued Customer,

At Fedrigoni Self-Adhesives, we have been proactively preparing for the evolving regulatory landscape surrounding bisphenols in direct food-contact applications for several years.

Since 2024, we have offered a comprehensive portfolio of Phenol-Free Direct Thermal solutions, developed to support customers seeking future-ready thermal labelling solutions while maintaining performance, reliability and operational continuity. These solutions have demonstrated their ability to meet the high-performance standards of the market.

The implementation of Regulation (EU) 2024/3190 introduces new restrictions on the intentional use of certain bisphenols, including Bisphenol S (BPS), in food contact materials.

However, according to the European Thermal Paper Association (ETPA) statement issued in June 2026, this regulation should not be interpreted as introducing an automatic ban on BPS in thermal paper for food contact applications as of 20 July 2026. The regulatory process for bisphenols other than BPA, including BPS, is still ongoing and will depend on future European Food Safety Authority (EFSA) guidance and subsequent authorisation procedures. Until this process is completed, BPS may continue to be lawfully used in thermal paper coatings for food contact applications provided that all applicable regulatory obligations are met.

As regulatory expectations continue to evolve, customers are increasingly assessing their thermal labelling specifications and evaluating alternative solutions that can support both compliance objectives and long-term sustainability strategies.

Fedrigoni is ready to support this transition.

Our portfolio includes solutions designed to meet different application needs, allowing customers to select the most appropriate product according to their technical, regulatory and operational requirements.

Thermal Top Solutions

Our Thermal Top portfolio is already aligned with current food packaging requirements and continues to provide an effective solution for a wide range of food labelling applications.

FEDRIGONI
Self-Adhesives
Ritrama S.p.A.
Registered and head office
Offices and slitting
and distribution centers
Via Senatore Simonetta 24
20867 Caponago, Italy
T +39 02 955 459 1
F +39 02 955 459 01

Share capital
€ 9.000.000 i.v.
VAT number IT 01676140153
Sole shareholder Fedrigoni S.p.A.
Business register MB
Monza e Brianza
Comp. Reg R.E.A. N. 1871535

info.caponago@fedrigoni.com
fedrigoni.com

Production sites
Viale Industrie 30
20060 Basiano (MB), Italy
T +39 02 923 948 1
F +39 02 923 948 39

Polo Ind.le Berbentina
60041 Sassoferrato (AN), Italy
T +39 073 297 061
F +39 073 296 436

Directing and controlling by
Fiber JVCo S.p.A.

FEDRIGONI
SELF-ADHESIVES

30 June 2026

Thermal Eco Phenol and Bisphenol free Solutions

For customers seeking alternatives free from bisphenols and other phenolic developers, Fedrigoni offers a dedicated Thermal Eco Phenol-Free range. Further information on our available solutions can be found in Annex 1.

Key features include:

- Direct thermal solutions designed without BPA, BPS or other intentionally added bisphenols.
- Reliable performance across multiple food packaging and retail applications.
- Proven adhesive technologies suitable for direct thermal labelling.
- Solutions supporting food packaging, short-term logistics, weigh-scale labels and general retail applications.

Supporting Our Customers

We recognise that regulatory developments can raise questions regarding product selection, compliance strategies and future portfolio planning.

Our technical, regulatory and commercial teams are available to support you in evaluating your specific applications and identifying the most suitable solution for your needs.

We remain committed to providing safe, reliable and future-ready labelling solutions while supporting our customers through ongoing regulatory developments.

Kind regards,

Fedrigoni Self-Adhesives

FEDRIGONI
Self-Adhesives
Ritrama S.p.A.
Registered and head office
Offices and slitting
and distribution centers
Via Senatore Simonetta 24
20867 Caponago, Italy
T +39 02 955 459 1
F +39 02 955 459 01

Share capital
€ 9.000.000 i.v.
VAT number IT 01676140153
Sole shareholder Fedrigoni S.p.A.
Business register MB
Monza e Brianza
Comp. Reg R.E.A. N. 1871535

info.caponago@fedrigoni.com
fedrigoni.com

Production sites
Viale Industrie 30
20060 Basiano (MB), Italy
T +39 02 923 948 1
F +39 02 923 948 39

Polo Ind.le Berbentina
60041 Sassoferrato (AN), Italy
T +39 073 297 061
F +39 073 296 436

Directing and controlling by
Fiber JVCo S.p.A.

FEDRIGONI
SELF-ADHESIVES

30 June 2026

ANNEX 1.

Thermal Eco Phenol and Bisphenol free

Sales Code	Product Name
SPE4096	FRUIT TAG SILVER / THERMAL ECO BP FREE FSC™ 220
SPE4026	FRUIT TAG WHITE / THERMAL ECO BP FREE FSC™ 230
PDT4066	THERMAL ECO PHENOL FREE FSC™ / PX1 / YG60
PDT4043	THERMAL ECO PHENOL FREE FSC™ / RF20 / YG60
PDT4041	THERMAL ECO PHENOL FREE FSC™ / P1000 / YG60
PDT4042	THERMAL ECO PHENOL FREE FSC™ / FH21 / YG60
PDT4065	THERMAL ECO PHENOL FREE FSC™ / TT50L / YG60

FEDRIGONI
Self-Adhesives
Ritrama S.p.A.
Registered and head office
Offices and slitting
and distribution centers
Via Senatore Simonetta 24
20867 Caponago, Italy
T +39 02 955 459 1
F +39 02 955 459 01

Share capital
€ 9.000.000 i.v.
VAT number IT 01676140153
Sole shareholder Fedrigoni S.p.A.
Business register MB
Monza e Brianza
Comp. Reg R.E.A. N. 1871535

info.caponago@fedrigoni.com
fedrigoni.com

Production sites
Viale Industrie 30
20060 Basiano (MB), Italy
T +39 02 923 948 1
F +39 02 923 948 39

Polo Ind.le Berbentina
60041 Sassoferrato (AN), Italy
T +39 073 297 061
F +39 073 296 436

Directing and
controlling by
Fiber JVCo S.p.A.

FEDRIGONI
academy

Fedrigoni Academy x IMEC

Beyond tomorrow

Author: Calvin Gaba

Table of contents

01 Introduction

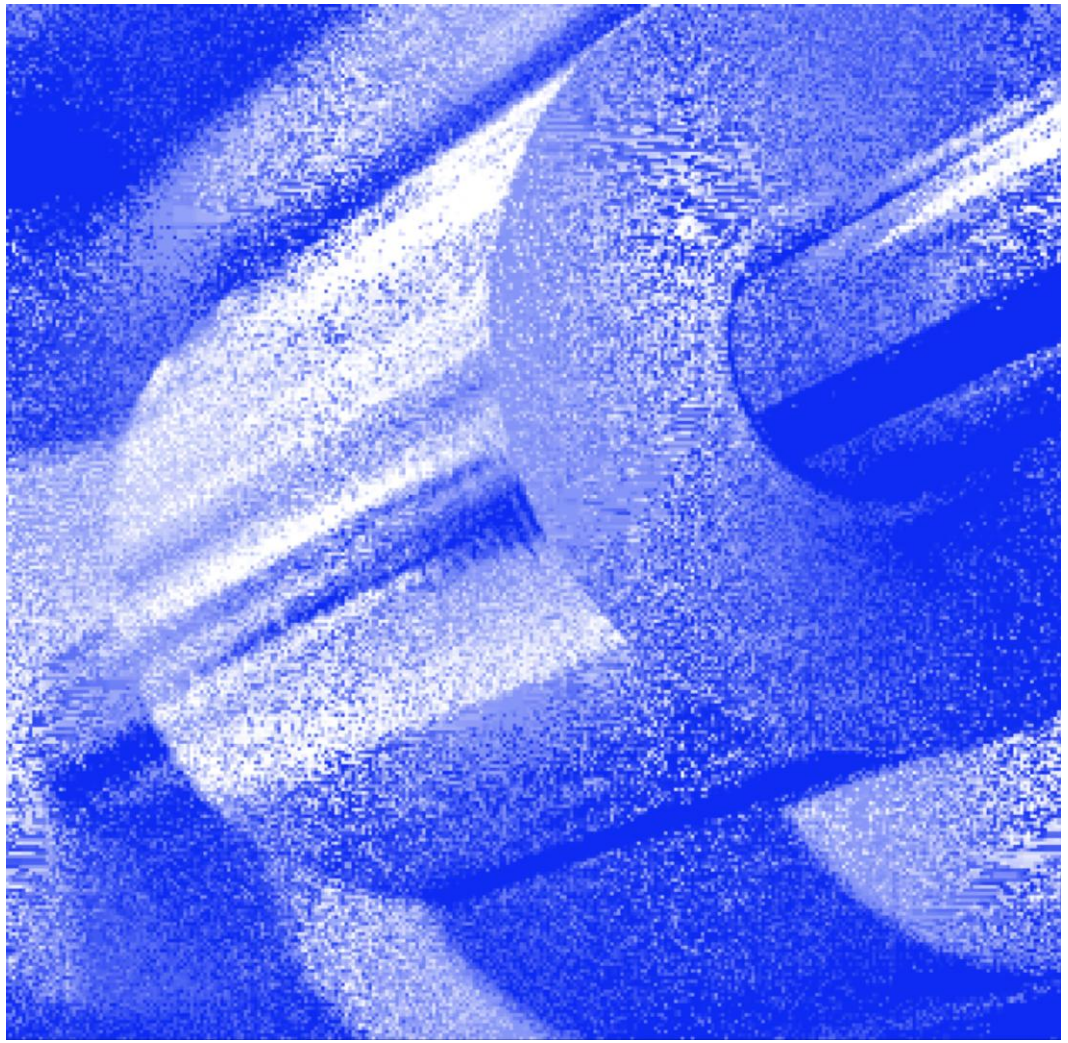
02 Fedrigoni Technical Support Team

03 Regulation Updates

04 Fedrigoni’s Material Strategy

05 Q&A

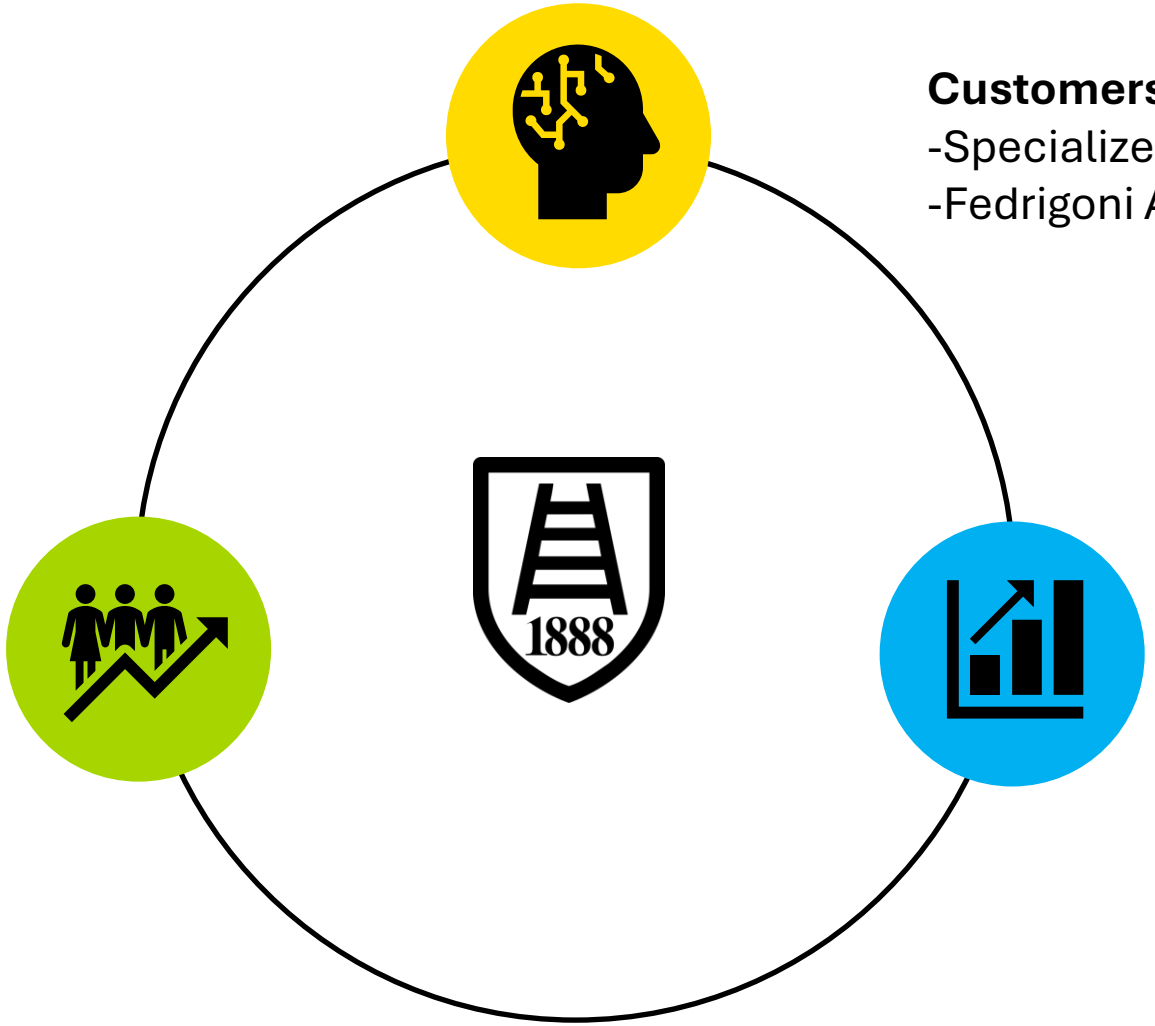
06 Closing



Technical Team

Strategic Technical Plan

Customers Learning Program
-Specialized Technical Trainings
-Fedrigoni Academy



Technical Partners
-Technical guidance
and problems solving
-Expertise and Specialization

Customers Cooperation
-Innovation and cooperation
Workshops
-Development of new projects
and products

Jordi Cañadas

Technical Sales Director EMEA
Fedrigoni Self-Adhesives Rolls Division

Alice Noterdame

Technical Sales France
Fedrigoni Self-Adhesives Rolls Division

Calvin Gaba

Technical Sales UK
Fedrigoni Self-Adhesives Rolls division

Michele Gianciotta

Technical Sales Italy
Fedrigoni Self-Adhesives Rolls division

Fatih Aybatti

Technical Sales CE
Fedrigoni Self-Adhesives Rolls Division

Multidisciplinary Skilled Team:

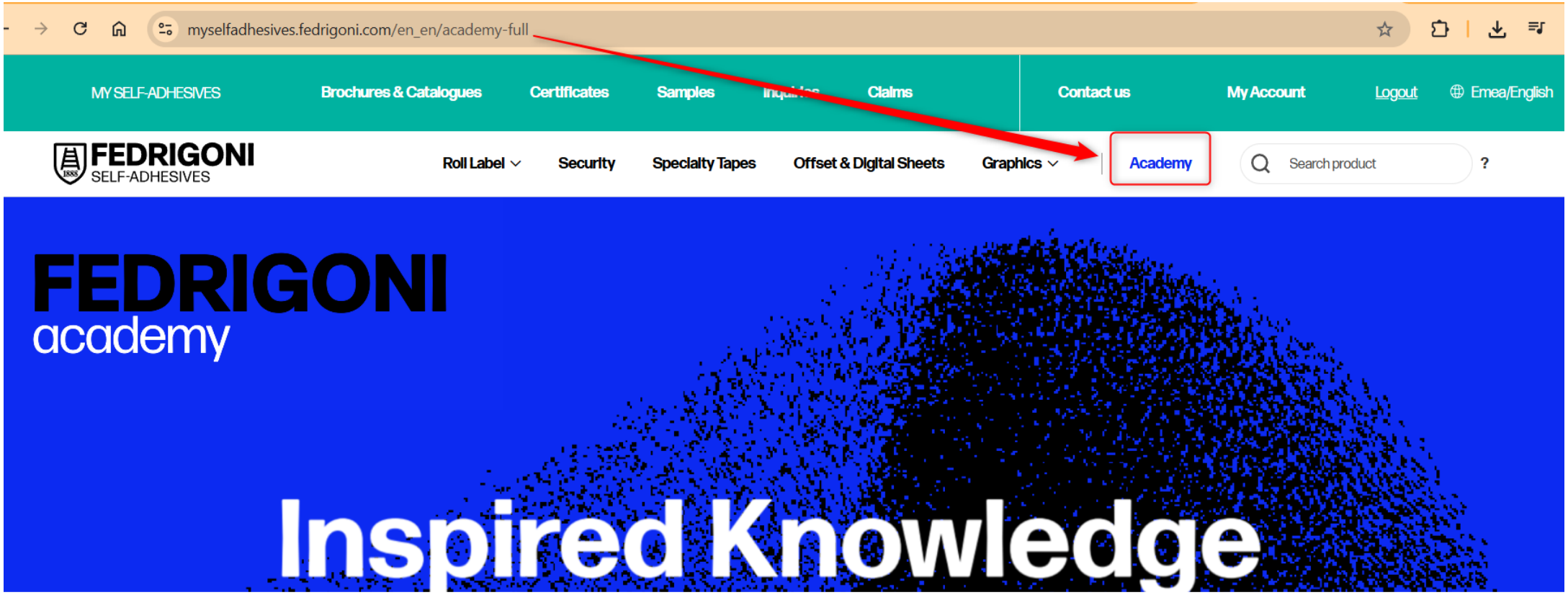
1. Experts in different areas: Converting and multilayer, printing, digital printing, pre-press, colour management, adhesives, lab tests and regulatory.

2. Local and responsive technical support: fast and personalized assistance

3. The right technician for the right solution: Treat the topics based on personal skills

4. Technical Team for all (technical.sales@fedrigoni.com)

Fedrigoni Academy



Welcome to the Fedrigoni Self-Adhesives Academy

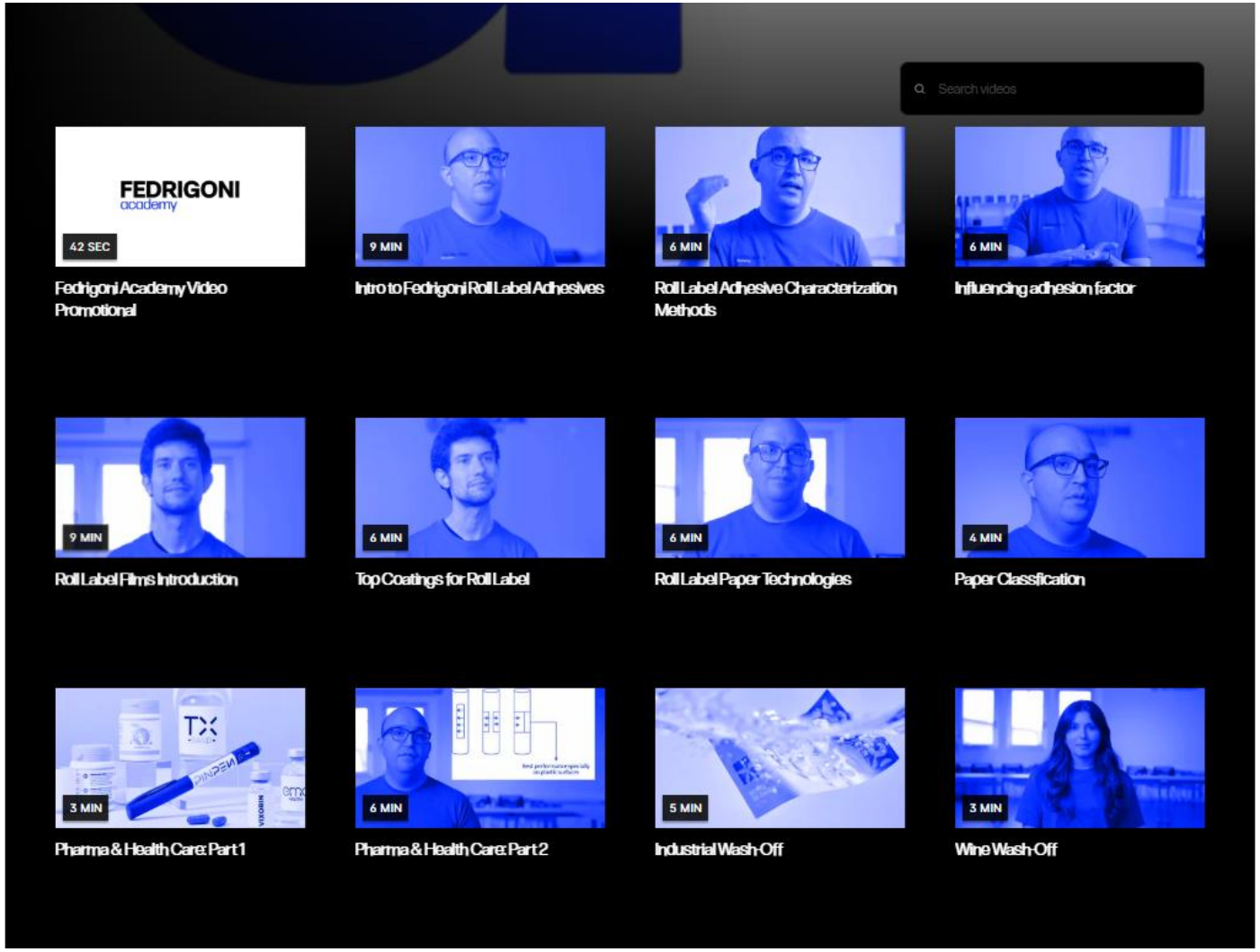
The Fedrigoni Self-Adhesives Academy is our dedicated learning platform created to expand your knowledge and expertise in the world of self-adhesive materials, applications, and technologies. Developed by our team of seasoned experts, the Academy offers comprehensive video sessions, practical training modules, and expert insights designed to help you fully understand our products and how to use them most effectively in real-world scenarios across various industries.

Whether you're new to self-adhesives or looking to deepen your existing knowledge, the Academy equips you with valuable tools and know-how to enhance your skills and drive innovation.

Explore by Product Type

Fedrigoni Academy

Fedrigoni Self-Adhesives Academy
Our dedicated learning platform providing expert-led training on self-adhesive materials, applications, and technologies. Through practical modules and technical insights, the Academy helps you build knowledge, develop skills, and apply our solutions with confidence across a range of industries.



Regulation Updates

Labels Are No Longer Just Branding

Labels have transformed into essential drivers of compliance, cost, operational performance, and market access

Regulatory Pressure

PPWR is already underway. The **2026–2028 decision window** will define what future-proof packaging looks like under rising regulatory and EPR cost pressure - with only A/B grades remaining viable long-term.

Economic Pressure

Extended Producer Responsibility (EPR) makes recyclability a direct cost factor. Packaging design becomes a margin driver, with cumulative EPR impact across EU markets including France, Denmark, and the UK & ROI.

Retailer & Consumer Demand

Retailers are enforcing circularity faster than legislation, increasingly driven by consumer expectations. Packaging is now a channel entry condition - exporters face pressure from Carrefour, Tesco, Kaufland, Systembolaget, and Vinmonopolet.

Recycling Systems Require It

Recyclability in Wine, Spirits, and Beer is defined by process performance, not materials. **Clean label removal is critical to avoid contamination** - labels and adhesives are a major source of glass recycling inefficiency (per FEVE*).

**FEVE: European Container Glass Federation*

The Regulatory Landscape

PPWR

EU Packaging & Packaging Waste Regulation

- Article 5 substance restrictions - heavy metals and PFAS apply to all packaging including shipping labels
- Design for Recycling (DfR) criteria, EPR fees, recycled content targets from 2030

EUDR

EU Deforestation Regulation

- Whether your paper-based labels need a Due Diligence Statement. Which HS codes are in scope. What your pulp supply chain must prove. Applies Dec 2026.

UK DRS*

UK Deposit Return Scheme

- Mandatory on-pack marking for in-scope drinks containers from 1 Oct 2027. Label artwork, positioning, and legibility requirements your customers will brief you on.

PPWR Timeline

Date	Obligation	Status
11 Feb 2025	PPWR enters into force	Done
12 Aug 2026	Article 5 substance restrictions & conformity assessment	Imminent
31 Dec 2026	Commission recycled content methodology	Near
1 Jan 2028	Design for Recycling (DfR) delegated acts	Future
12 Aug 2028	Harmonised labelling mandatory	Future
1 Jan 2030	Recyclability grades, recycled content & minimisation	Future
1 Jan 2035	Recyclable at scale	Future
1 Jan 2038	Grade A & B only	Future
1 Jan 2040	Higher recycled content & reuse targets	Future

PPWR - Article 5 - 12 August 2026

Heavy metals - all packaging

Article 5(1) - all packaging types

Lead, cadmium, mercury and hexavalent chromium combined must not exceed 100 ppm in any packaging or packaging component placed on the EU market.

PFAS ban - food-contact packaging only

Article 5(5) - food-contact packaging

Three thresholds apply: ≤25 ppb any individual PFAS; ≤250 ppb sum of PFAS (targeted analysis); ≤50 ppm total fluorine. Applies regardless of whether PFAS is intentionally added.

Conformity Assessment & DoC

Article 38–39 - all packaging

All packaging must have a completed conformity assessment (Annex VII) and EU Declaration of Conformity (Annex VIII). Initially Article 5 only; further articles added as later obligations apply. Manufacturers issue the DoC; importers must collect and retain it (5 yrs single-use, 10 yrs reusable).

PSA Label Anatomy & Where Regulations Apply

Layer	Typical Materials	Regulatory Implications
Face Material	Paper (coated/uncoated), PP, PE, PET, PO	PPWR: biggest driver of recyclability grade. EUDR: paper face materials in scope (HS48). Mono-material face = higher DfR grade.
Topcoat / Varnish	UV, water-based, silicone-release coatings	PPWR: fluorinated coatings (PFAS) banned from food-contact packaging from 12 Aug 2026.
Ink / Print	UV, water-based, solvent-based inks	PPWR DfR: dark/carbon-black inks impair NIR sorting - may reduce recyclability grade. Migration: food-contact packaging rules still apply.
Adhesive (PSA)	Water-based acrylic, solvent acrylic, hotmelt, UV hotmelt	PPWR: wash-off adhesives needed for glass stream; compatible adhesives for PET recycling. Adhesive type is a key DfR criterion.
Liner / Release	Silicone-coated paper or PET/PE liner (matrix waste)	Liner is packaging waste - producer responsibility applies. EUDR: silicone-coated paper liner (HS48) in scope – if end user is selling on liner

PPWR – Recyclability - 1 Jan 2028

Recyclability Grade Summary

2030 target : Performance grades accepted to be put on the market :

Grade A: ≥95% recyclable.
Grade B: ≥80% recyclable.
Grade C: ≥70% recyclable.

2038 target : Performance grades accepted to be put on the market : A & B.

PPWR – Design for Recycling: PSA Label Solutions

Three Approved Recyclability Approaches for PSA Labels

Approach	Best For	How It Works	Certification Route
1. Wash-off adhesive	Glass, PET, HDPE bottles in deposit / recycling streams	Adhesive dissolves at 60–80°C in industrial washing. Label floats off cleanly - no residue on substrate. Required for glass stream; recommended for PET. UK DRS containers will be washed - wash-off spec will likely be mandatory.	RecyClass; CEFLEX (flexible PE); APR (US/PET equivalent)
2. Monomaterial / in-mould label	PP packs, PE flexibles, PET trays	Face material matches host substrate (PP label on PP pack = one polymer stream). Adhesive and liner must also be compatible with host recycling stream.	RecyClass monomaterial protocol; TUV Austria; Aticelca (paper on board)
3. Compostable (limited use only)	Exempt formats only - tea/coffee bags, fruit/veg sticky labels	PPWR mandates industrial compostability for sticky labels on fruit and veg from 12 Feb 2028. Must not disrupt other recycling streams. For all other formats: compostable is NOT sufficient - material recycling must also be achievable.	TUV Austria OK compost INDUSTRIAL; DIN CERTCO

Recycled content

01/01/2030 — 01/01/2040

Minimum PCW Recycled Content

For contact sensitive packaging made from PET, except single use beverage bottles	**30% Recycled Content**
For contact sensitive packaging made from other plastics than PET	10 % Recycled Content
For single use plastic beverage bottles	30 % Recycled Content
For plastic packaging other than those referred above	35 % Recycled Content

Minimum PCW Recycled Content

For contact sensitive packaging made from PET, except single use beverage bottles	**50% Recycled Content**
For contact sensitive packaging made from other plastics than PET	25 % Recycled Content
For single use plastic beverage bottles	65 % Recycled Content
For plastic packaging other than those referred above	65 % Recycled Content

Exclusions from Regulation :

- Contact sensitive plastic packaging of medical devices and medicinal products
- Contact sensitive plastic packaging for food intended for infants and young children
- **Any plastic part representing less than 5% of the total weight of the whole packaging unit = label**
- Methodology for recycled content issue on 31/12/2026

Reuse - Binding targets from 1 January 2030

Wash-off labels

Single-use reusable packaging

- Beverage reuse (10% by 2030) drives demand for labels releasing cleanly in alkaline wash cycles
- Primary use case: glass bottle return systems
- Label must detach completely - no adhesive residue that contaminates the wash bath
- Face, adhesive AND coatings all affect wash performance - the whole construction matters
- Test to FEICA / RecyClass wash-off protocols
- Wine, spirits & milk exempt - but DRS & voluntary schemes still drive demand

Durable labels

Multi-trip reusable packaging

- Transport packaging (pallets, crates, IBCs): 40% reusable by 2030 - labels must survive multiple cycles
- Same-operator / same-Member-State transport: 100% reusable from 2030 - most urgent pressure point
- Label must withstand repeated washing, handling and temperature cycling
- Permanent adhesion through wash cycles - opposite brief to wash-off
- Construction: polyester face, aggressive adhesive, resistant topcoats
- Replacement cycle must be factored into the spec

Tracking & compliance labels

Traceability & reuse marking

- Reusable packaging must be traceable - QR code requirement by Feb 2029 (Art. 12)
- Labels are the primary vehicle for reuse system QR codes and RFID tags
- Must link to: return points, cleaning guidance and reuse instructions
- Label must remain legible and scannable across all use cycles
- Harmonised reuse pictogram spec pending implementing act - monitor closely
- Opportunity: data-carrier labels as a value-add alongside the construction

Cross-border trade: UK Deposit Return Scheme – Label Requirements

Scheme Summary

Item	Detail
Go-live date	1 October 2027 (England, Scotland, Northern Ireland)
Estimated deposit	20p per container (to be confirmed by DMO)
In-scope containers	PET plastic, steel and aluminium, 150ml–3 litres, single-use
Out-of-scope (Eng/NI)	Glass, HDPE (milk bottles), liquid medicines, multi-pack containers as a unit
Wales	Separate scheme - glass included. Welsh regulations expected later 2026. Separate DMO to be appointed.
Deposit Management Organisation	'Exchange for Change' - named January 2026. Finalising specs Spring 2026.

What In-Scope Containers Need on the Label

Requirement	Detail	Action for Converters
Scheme logo / return mark	DMO will publish the mandatory 'Exchange for Change' mark. Must appear on label/pack. Size, position and colour spec to be confirmed Spring 2026.	Reserve label space. Update artwork templates when spec is published.
Barcode / machine-readable ID	RVMs scan barcode to verify container and release deposit. Label barcode must be legible to RVM optical scanners.	Check print quality, contrast and substrate reflectivity on all relevant constructions.
Deposit value (TBC)	DMO may require deposit amount on-pack (e.g. '20p deposit - return to retailer'). Await final spec.	Alert customers to allow space in artwork brief.
Wash-off adhesive	Returned containers are washed before recycling. Adhesive must be wash-off spec to avoid contaminating recycled material stream.	Spec wash-off adhesive for all PET, aluminium and steel container labels. Aligns with PPWR requirement.
Nation-specific marking	England/NI and Scotland share a scheme. Wales is separate. Packs sold across nations may need to accommodate both.	Raise with customers during artwork briefing stage.

Fedrigoni’s Material Strategy

Packaging & Packaging Waste Regulations

RecyClass

A non-profit, cross-industry initiative facilitating the transition toward a circular plastic future.

APR

APR is an international non-profit and the only North American organization focused exclusively on improving recycling for plastics.

certified by Institute cyclos-HTP recyclable

The Institute cyclos-HTP is a company specialised in the classification, assessment and certification of recyclability of packaging and goods as well as in research and development in this area.

TÜV AUSTRIA

Certification body for compostable materials

FRANCE CONSIGNE

France Consigne is an organisation aiming to develop a large-scale reuse of glass containers in France.

Aticelca

Aticelca is the Italian association that evaluates and certifies the recyclability of paper and paper-based materials.

Recyclability & end-of-life

Core Pillar	Container Material	Label Material	Materials	Certifications
Recyclability Optimal End of Life	PET	PP / Globalflex	 Ri-Move PET / AR842	RecyClass Full compatibility
	HDPE	PP / Globalflex PE	 PE + AP901/AP1000	RecyClass Full compatibility
			PP + AP903/RP1101	Grade B
			PP/Globalflex + AP901/AR842	Grade B *Submitted to Full Compatibility
	PP	PP	 PP or PE + AP901	RecyClass Compatibility with coloured
		PE		
	LDPE Flexible	PP	 PE + SB adhesives	RecyClass Compatibility with coloured
		PE		

Paper & Cardboard Packaging

- **COATED 80 FSC™** with **P1000 (Grade C), FH21 (Grade B), RP3000 (Grade B).**
- **TRANSLUCENT AP995 (Grade A+),** mixed within recyclate A+ standard paper & cardboard

27th June 2025

Statement – Recyclability Evaluation according to ATICELCA 501:2019

Product:
PCD0584 COATED 80 FSC™ / FH21 / YG60

This statement specifies the results of a recyclability assessment carried out on the abovementioned product, according to the following references:

- UNI 11743:2019 – Paper and board - Determination of recyclability parameters of cellulose-based materials and products
- ATICELCA 501:2019 – Assessment of the level of recyclability of predominantly cellulosic materials and products

The assessment relies on parameters which are evaluated on a laboratory scale, simulating the main phases of an industrial paper recycling process.

The abovementioned product is intended to be recycled together with a broader recyclable paper packaging. Based on this consideration, and excluding the liner, we confirm that this product can sustain the following Recyclability Level:

Level B

when it constitutes less than **1.0%** of the weight of a "A+ Level" recyclable paper packaging.

As an indication, this would correspond to a 30x40 mm label on a small 400 gsm cardboard box (80x110x20 mm).

This statement is valid for the product as such, as supplied and does not cover subsequent transformations (printing, die cutting, further coating or lamination) after which suitability for the required use needs to be reassessed.

It is always a responsibility of the final user or the producer of the final item to verify that articles meet their relevant requirements.

Thermal Papers

What Reg. EU 2024/3190 actually says

- Bans BPA in food contact materials - not other bisphenols
- 20 July 2026 = end of 18-month transition for BPA in single-use food contact materials only
- BPS and other bisphenols face a separate authorisation process - not an outright ban
- EFSA must publish guidelines before any application can even be submitted (expected Jan 2027)
- Commission decision on BPS: earliest end of 2027, more likely 2028
- REACH: no current restriction on BPS in thermal paper, provided notification requirements are met

Regulatory timeline to watch

Now	BPS lawful - no change to current supply
Jan 2027	EFSA publishes authorisation guidelines (expected)
End 2027 – 2028	Earliest possible Commission decision on BPS

Want complete bisphenol-free materials?

We offer phenol-free thermal paper constructions for customers who want to get ahead of future regulatory change, or whose brand sustainability policy requires fully bisphenol-free materials today. Ask your account manager for options.

Recyclability – Mono Material Packaging

Container + Pressure Sensitive Label

Compostable Packaging

ECOFILM WHITE/CLEAR FC01

THERMAL ECO BPA FREE FC02

Industrial Compost TUV Austria Certified

Container - Pressure Sensitive Label

Standard GLASS Packaging

PAPER RH4000 or PET CLEAR AR816
Valid for FINAT TEST METHOD (FTM) 26

AR816: Suitable for filmic face stocks.
- Permanent adhesive.
- Good wash-off performance under hot caustic bath (Alkaline bath 75°C.)

RH4000: Suitable for paper face stock.
- Permanent acrylic water-based adhesive.
- Especially developed for wash-off applications at low temperature. Min temp 0°C - optimal 60°C.

Wine Papers

71
GL

WINE GLASS Packaging

FRANCE CONSIGNE

Wine Paper Certified for France Consigne guidelines & FINAT TEST METHOD (FTM) 26

SH6020-W: Suitable for paper face stocks.

- Permanent acrylic water-based adhesive.
- Ageing protocols
- Suitable for alkaline bath 80°C.

Added value:	**Dual Performance Capability**
Flexibility and Efficiency:	**A unified solution for multiple purposes**
Price:	**Unified Alignment**
Sustainability :	**Getting ahead of upcoming recyclability regulations**

Adhesive	Initial Repositionability	Permanent during product shelf life (including ice bucket)	Wash-off at end life / industrial washing
SH6020 PLUS	YES	YES	Some face papers now, in combination with adhesive SH6020-W PLUS
SH6020-W PLUS	YES	YES	YES, and certified by Bout a Bout
AP1300	NO	YES (best performance)	NO
SH9020	NO	YES	NO
FW8000	Replaced by SH6020-W PLUS		

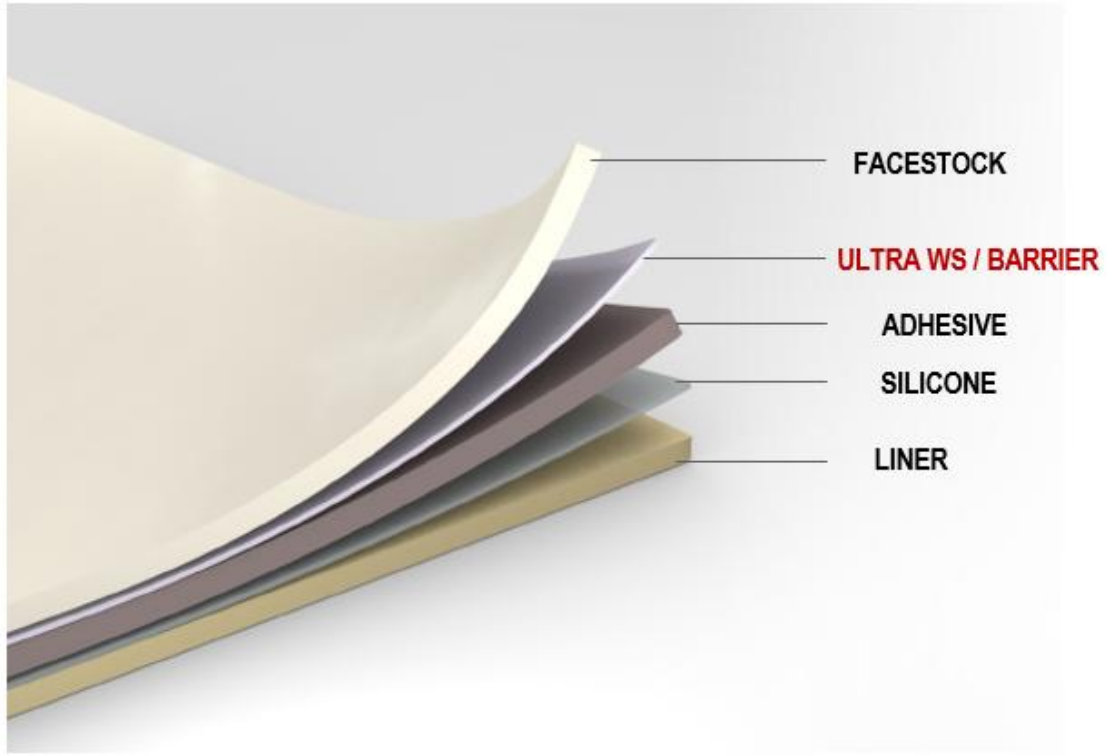
Bout'à Bout'

Ultra WS™ and Barrier

- **Ultra Wet Strength**
- Polyolefin co-extrusion on facestock's backside.
- Enhances flexibility (tensile modulus < 2 GPa), reducing wrinkles and bubbles.

Barrier

- Polypropylene (PP) between facestock and adhesive.
- Increases moisture resistance (water vapor transmission rate < 10 g/m^2/day).



Especially recommended for white, rosé and sparkling wines, these solutions prevent the formation of wrinkles and deformation of the label in the ice bucket or in case of temperature shifts and increases the adhesion on glass surfaces in humid conditions.

Guidelines & Recommendations

1. Product Overview

Performance Across Conditions

- SH6020-W PLUS adhesive ensures efficient adhesion throughout the product's lifecycle. It resists challenges such as refrigeration, cellar storage, and immersion in ice buckets. Despite its effective adhesion, the label detaches cleanly and effortlessly in a hot alkaline bath, leaving no adhesive residue and enabling bottle reuse.

Circular Design & Consumer Appeal

- This wash-off adhesive enhances the circularity of glass packaging by reducing waste and supporting material reuse.
- The range caters to consumer preferences for sustainable packaging while offering embossed and textured finishes that enhance the premium appearance of wine labels.

2. How It Works

- The bottle is soaked in a hot caustic soda bath for several minutes.
- The water temperature must reach at least 80°C, with an alkaline solution concentration of 1.5% to 2%, specifically using caustic soda.
- The alkaline solution must penetrate the core of the label, triggering a chemical reaction that causes the adhesive to inactivate, allowing the label to peel off easily from the glass without any adhesive residue.

3. Key Considerations / Watchpoints

Several factors may reduce the effectiveness of label wash-off. These include :

- Solid printing, over-varnishing or lamination of the label
- Inadequate wash-off conditions (temperature, soaking time, soda concentration)
- Poor bottle surface quality
- Extended storage or ageing before wash-off
- Incompatible welded technologies like Ultra WS or Barrier
- Non-washable adhesive composition
- Paper that is not permeable to alkaline solution
- Oversized labels that hinder full penetration of the solution

Guidelines & Recommendations

4. Material & Printing Guidelines

Paper Requirements

The paper must meet the following criteria:

- Wet strength treated to resist condensation without smudging colors
- Unlaminated
- No chemical waterproofing treatment
- Grammage: 70–100 g/m²

Printing & Embellishment Recommendations

Printing and embellishments must not hinder water or alkaline solution penetration.
Use adequate ink coverage and select processes that do not create impermeable surfaces.

	Accepted	Refuse
Foil	Simple frame, fine lines or thin letters	Solid filled areas
Varnish	/	All types of varnish
Effect	Embossing Debossing	Screen printing Over laminating
Colors	Light or partial solid printing areas	Wide solid printing areas

Note: Each project should be individually assessed, technical parameters may also be adapted (ink type, primer reference...)

5. Storage Conditions & Shelf Life

Before Application

- Shelf life: 2 years
- Storage conditions: 20–25°C, 40–50% relative humidity (as per FINAT section 2.5)
- Exposure to higher temperatures or humidity will shorten shelf life.

After Application

- Bottles can be stored for up to 1 year.
- Preferred conditions: indoor storage without major humidity and temperatures variations.
- For outdoor storage, ensure minimal humidity and temperature fluctuations and no UV exposure.

Important: Each project must be validated by the local washing facility to ensure wash-off performance.

CONCRETE W&S WASH-OFF / REUSE PRESSURE

CORE MARKETS (50% SUMMARY)

MARKET	CONCRETE PRESSURE	EPR / PRESSURE SOURCE
FRANCE	• National reuse trajectory: 5% reusable packaging by 2023 / 10% by 2027. • **Citeo / Adelphe** connect packaging policy with reduction, reuse and eco-design. • **Carrefour** has piloted in-store reuse / refill initiatives, helping keep reuse visible in retail.	**EPR via Citeo / Adelphe** Affects packaging placed on the French market: local producers, importers, distributors and subsidiaries of export brands. **Retail pressure** Retailers are not asking for reusable Champagne or Cognac bottles at scale, but they are making reuse part of the packaging conversation. CITEO adelphe
GERMANY	• **Wein-Mehrweg** has developed a standard reusable 0.75L wine bottle and crate system. • **Kaufland** sells reusable wine bottles in Southern Germany and accepts returns through reverse vending. • **EDEKA Südwest, Getränke Hoffmann** and Fiestre are also testing / distributing reusable wine bottles.	**Compliance / producer responsibility** Packaging placed on the German market must be registered and reported. Pressure is felt by local companies, importers and subsidiaries of export brands.
PORTUGAL	• **Portugal is not a real** W&S reuse market; bottles are still mostly one-way. • Reuse is discussed at policy level, but practical W&S implementation remains very limited. • Market pressure today is mainly on recyclability, compliance and circularity documentation.	**EPR / compliance pressure** Applies to packaging placed on the Portuguese market. Pressure is felt mainly by local producers, importers and distributors through reporting and circularity expectations. Main actors: PROs such as Sociedade Ponto Verde, plus APA. No meaningful commercial reuse pressure today.
SCANDINAVIA	• **Systembolaget, Alko** and Vinmonopolet influence access to imported W&S. • These monopoly retailers push strong sustainability documentation and packaging credibility. • In Finland, deposit-system logic makes reuse / return discussions more visible in alcohol packaging.	**Monopoly retailers** Not EPR bodies, but market-access gatekeepers. Suppliers / importers must prove strong eco-profile, sustainability and packaging documentation. SYSTEMBOLAGET ALKO VINMONOPOLET

CONCRETE W&S WASH-OFF / REUSE PRESSURE

EXPORT & DESTINATION MARKETS (50% SUMMARY)

MARKET	CONCRETE PRESSURE	EPR / PRESSURE SOURCE & WHO FEELS IT
UK	• Reuse pressure comes mainly from retailers and private-label teams exploring refill and circular packaging models. • Reusable glass is not the mainstream route for W&S, but reuse remains part of the broader packaging discussion. • Relevant retail pressure examples: Tesco, Sainsbury's, Waitrose, M&S and Majestic.	**Market pressure** Felt mainly through retailers, private-label owners and brand teams reviewing packaging strategy. **Retailer pressure** Focus: packaging image, circularity claims and future refill / reuse options. TESCO Sainsbury's WAITROSE & PARTNERS M&S Majestic
ITALY & SPAIN	• No retail reuse movement comparable to Germany for Prosecco, Franciacorta, Cava or premium wine. • Pressure comes mainly from export expectations where reuse and circularity expectations are higher. • Expecting to France, UK, Germany, Scandinavia, Netherlands or Switzerland can trigger documentation requests. • Sparkling wine reuse remains selective due to pressure bottles, brand-specific glass and export logistics.	**Market-access pressure** Producers feel the pressure through importers, retailers, monopoly channels and local subsidiaries in destination markets. **Expectations** Packaging documentation, circularity narratives and future-ready specifications.
NETHERLANDS	• Not a mainstream reuse market for imported W&S, but a demanding circular-packaging destination market. • Pressure comes mainly from importers, retailers and sustainability teams, not from refill schemes. • Documentation, recyclability and PPWR-readiness are increasingly expected for imported brands.	**EPR / market-entry pressure** Manufacturers and importers placing packaging on the Dutch market are responsible under EPR. Packaging waste management contributions are paid via Verpact / Afvalfonds Verpakkingen. Retailers increasingly expect credible circularity data and recyclability claims. Verpact AFVALFONDS VERPAKKINGEN
SWITZERLAND	• Premium imported W&S market with high environmental expectations. • For glass bottles, the main route is recycling rather than reuse. • Pressure comes mainly from importers, premium retailers and sustainability teams.	**Pressure via market partners / system rules** Packaging must be compatibls with Swiss collection and recycling systems. Reusable packaging requires a deposit and clear reusable marking. Strong expectations on credible packaging choices and documentation. coop MIGROS

WAVE 1 - June

JUNE

OLD USC	Product Description	GLOBAL EAN CODE	NEW USC	NEW Product Description SH6020-W PLUS	GLOBAL EAN CODE
SPR4034	CASABLANCA CLASSIC H+O WS FSC™ SPR / SH6020 PLUS / WG74	8059778057824	WNE5153	CASABLANCA CLASSIC H+O WS FSC™ / SH6020-W PL	8059778068042
WNE4357	DUNE WHITE H+O WS FSC™ / FW8000 / WG74	8059778053468	WNE5139	DUNE WHITE H+O WS FSC™ / SH6020-W PLUS / WG74	8059778067946
WNE4011	DUNE WHITE H+O WS FSC™ / SH6020 PLUS / WG74	8059778031633			
WNE0271	SOROLLA H+O WS FSC™ / SH6020 PLUS / PET30	8059778018764	WNE5148	SOROLLA H+O WS FSC™ / SH6020-W PLUS / PET30	8059778068004
WNE4260	SOROLLA H+O WS FSC™ / FW8000 / PET30	8059778006402			
WNE4020	SOROLLA IVORY H+O WS FSC™/ SH6020 PLUS / WG74	8059778031732	WNE5149	SOROLLA IVORY H+O WS FSC™/ SH6020-W PLUS / WG7	8059778068011
WNE0865	SUPERMATT WS FSC™ / SH6020 PLUS / PET30	8059778019099	WNE5151	SUPERMATT WS FSC™ / SH6020-W PLUS / PET30	8059778068028
WNE4866	TINTORETTO GESSO H+O WS FSC™ / SH6020 PLUS / PET30	8059778060572	WNE5157	TINTORETTO GESSO H+O WS FSC™ / SH6020-W PLUS	8059778068080
WNE0404	TINTORETTO IVORY H+O WS FSC™ / SH6020 PLUS / WG80	8059778020521	WNE5154	TINTORETTO IVORY H+O WS FSC™ / SH6020-W PLUS /	8059778068059

WAVE 2 - July

JULY

OLD USC	Product Description	GLOBAL EAN CODE	NEW USC	NEW Product Description SH6020-W PLUS	GLOBAL EAN CODE
WNE4259	COATED 80 WS FSC™ / FW8000 / WG74	8059778006396	WNE5137	COATED 80 WS FSC™ / SH6020-W PLUS / WG74	8059778067915
WNE0393	COATED WS FSC™ / SH6020 PLUS / WG74	8059778036843			
SPR4043	CASABLANCA CLASSIC H+O WS FSC™ SPR / SH6020 PLUS / PET23	8059778058289	WNE5156	CASABLANCA CLASSIC H+O WS FSC™ / SH6020-W PL	8059778068073
SPR4051	CASABLANCA CLASSIC H+O WS FSC™ SPR / SH6020 PLUS / PET30	8059778058623			
WNE4255	CAST GLOSS WS FSC™ / FW8000 / WG74	8059778006358	WNE5135	CAST GLOSS WS FSC™ / SH6020-W PLUS / WG74	8059778067892
WNE4148	CAST GLOSS WS FSC™ / SH6020 PLUS / WG80	8059778002626			
WNE0386	CAST GLOSS WS FSC™ / SH6020 PLUS / WG74	8059778021740			
WNE4149	CAST GLOSS WS FSC™ / SH6020 PLUS / PET30	8059778002633	WNE5136	CAST GLOSS WS FSC™ / SH6020-W PLUS / PET30	8059778067908
WNE4097	DUNE CREAM H+O WS FSC™ / SH6020 PLUS / WG74	8059778048297	WNE5138	DUNE CREAM H+O WS FSC™ / SH6020-W PLUS / WG74	8059778067922
WNE4359	DUNE CREAM H+O WS FSC™ / FW8000 / WG74	8059778053529			
WNE4256	DUNE WHITE H+O WS FSC™ / FW8000 / PET30	8059778006365	WNE5140	DUNE WHITE H+O WS FSC™ / SH6020-W PLUS / PET30	8059778067953
WNE4109	DUNE WHITE H+O WS FSC™ / SH6020 PLUS / PET30	8059778048525			
WNE4150	MARTELE WHITE H+O WS FSC™ / SH6020 PLUS / PET30	8059778002657	WNE5144	MARTELE WHITE H+O WS FSC™ / SH6020-W PLUS / PE	8059778067984
SPR4021	SOROLLA CLASSIC WS FSC™ SPR / FW8000 / WG74	8059778055875	WNE5145	SOROLLA CLASSIC WS FSC™ / SH6020-W PLUS / WG74	8059778067991
SPR4017	SOROLLA CLASSIC WS FSC™ SPR / SH6020 PLUS / WG74	8059778055301			
WNE4254	SUPERMATT WS FSC™ / FW8000 / WG74	8059778006341	WNE5150	SUPERMATT WS FSC™ / SH6020-W PLUS / WG74	8059778068028
WNE0962	SUPERMATT WS FSC™ / SH6020 PLUS / WG74	8059778023973			
WNE4253	TINTORETTO GESSO H+O WS FSC™ / FW8000 / WG80	8059778006334	WNE5152	TINTORETTO GESSO H+O WS FSC™ / SH6020-W PLUS	8059778068035
WNE4867	TINTORETTO GESSO H+O WS FSC™ / SH6020 PLUS / WG80	8059778060589			
WNE0456	TINTORETTO IVORY H+O WS FSC™ / SH6020 PLUS / PET30	8059778024567	WNE5159	TINTORETTO IVORY H+O WS FSC™ / SH6020-W PLUS /	8059778068103

WAVE 3 - September

SEPTEMBER

OLD USC	Product Description	GLOBAL EAN CODE	NEW USC	NEW Product Description SH6020-W PLUS	GLOBAL EAN CODE
WNE4311	COATED 80 WS FSC™ / FW8000 / PET30	8059778050641	WNE5155	COATED 80 WS FSC™ / SH6020-W PLUS / PET30	8059778068066
WNE4257	MARTELE WHITE H+O WS FSC™ / FW8000 / WG74	8059778006372	WNE5143	MARTELE WHITE H+O WS FSC™ / SH6020-W PLUS / WG74	8059778067984
WNE4748	MARTELE WHITE H+O WS FSC™ / SH6020 PLUS / WG74	8059778059415			
SPR4016	SOROLLA CLASSIC WS FSC™ SPR / SH6020 PLUS / PET23	8059778055189	WNE5146	SOROLLA CLASSIC WS FSC™ / SH6020-W PLUS / PET23	8059778067991
WNE4361	SOROLLA H+O WS FSC™ / FW8000 / WG74	8059778053536	WNE5147	SOROLLA H+O WS FSC™ / SH6020-W PLUS / WG74	8059778068004
WNE4018	SOROLLA H+O WS FSC™/ SH6020 PLUS / WG74	8059778031718			

WAVE 3 – September (testing)

TESTING

OLD USC	Product Description	GLOBAL EAN CODE	NEW Product Description SH6020-W PLUS
WNE4592	BRILLANTE WHITE FELT 30% PCW WS FSC™ / SH6020 PLUS / PET30	8059778057954	BRILLANTE WHITE FELT 30% PCW WS FSC™ / SH6020-W PLUS / PET30
WNE4586	BRILLANTE WHITE FELT 30% PCW WS FSC™ / SH6020 PLUS / WG74	8059778057831	BRILLANTE WHITE FELT 30% PCW WS FSC™ / SH6020-W PLUS / WG74
WNE4327	COTONE ESSENZA ULTRA WS FSC™ / SH6020 PLUS / rPET23	8059778051532	COTONE ESSENZA WS FSC™ / SH6020-W PLUS / WG74
WNE4325	LAID WHITE 80 WS FSC™ / FW8000 / WG74	8059778051372	LAID WHITE 90 WS FSC™ / SH6020-W PLUS / WG74
WNE0303	TINTORETTO BLACK PEPPER FSC™/ SH6020 PLUS / WG80	8059778020293	TINTORETTO BLACK PEPPER FSC™ / SH6020-W PLUS / WG80
WNE4327	COTONE ESSENZA ULTRA WS FSC™ / SH6020 PLUS / rPET23	8059778051532	COTONE ESSENZA WS FSC™ / SH6020-W PLUS / PET30

Q&A

FEDRIGONI
academy

Version May 2026

FINAT Informative Note

PFAS limits for labels in the context of PPWR Article 5(5)

1 Background

Article 5(5) of Regulation (EU) 2025/40 on packaging and packaging waste (PPWR) introduces concentration limits for per- and polyfluorinated alkyl substances (PFAS) in food-contact packaging. As from 12 August 2026, food-contact packaging shall not be placed on the market if it contains PFAS at or above the limit values set out in Article 5(5).

These limits are summarized as:

- 50 ppm for PFASs, including polymeric PFAS
- 250 ppb for the sum of PFAS , excluding polymeric PFAS
- 25 ppb for any individual PFAS, excluding polymeric PFAS

These provisions have led to questions from converters and their customers regarding the PFAS content of decoration materials (labels, sleeves) supplied for use in food packaging applications. This information note aims to clarify how Article 5(5) PPWR applies in this context, based on the legal text of the PPWR[1], as well as the Commission Notice[2] and the FAQ on the PPWR[3].

2 Scope of the PPWR PFAS provisions

The PFAS limits in Article 5(5) apply to **food-contact packaging as placed on the market**. The legal obligation and limits apply to the **finished packaging article** in contact or intended to become in contact with food. Manufacturers of the finished packaging product are responsible with compliance with this requirement, which has to be reflected in their Declaration of Conformity (DoC) for the packaging unit.

While included in the packaging unit, the limits do not apply in isolation to the components and constituents of the packaging unit such as pressure-sensitive labels, face papers or films, adhesives or printing inks (PWPR FAQ, Question 15).[3] For the finished packaging to be compliant, any potential contribution from packaging components must be assessed and appropriately documented within the supply chain.

Components that may not be in direct contact with food, such as a label on a bottle, are considered part of the food contact packaging unit, and need to be included in the assessment (PWPR FAQ, Question 15).[3]

3 Good Manufacturing Practice

Suppliers of labelstock materials, adhesives and printing inks for food-contact packaging typically operate under established good manufacturing practice (GMP) systems. Management of

[1] Regulation (EU) 2025/40 of the European Parliament and of the Council of 19 December 2024 on packaging and packaging waste, Official Journal of the European Union.

[2] European Commission, Annex to the Commission Notice C(2026) 2151, 30 March 2026.

[3] European Commission, FAQ on PPWR, 30 March 2026.

The association for the European label industry
PO Box 85612 | 2508 CH The Hague | Netherlands | +31 (70) 312 39 10
info@finat.com | www.finat.com | VAT NL 8015.78.929.B01

impurities and residues, including PFAS, forms part of standard quality and compliance procedures across the value chain.

4 Intentional and unintentional use of PFAS

While the limits for PFAS in the PPWR do not distinguish between intentional and non-intentional uses of PFAS, it is important to distinguish between them.

A study performed by the Swedish institute RI.SE upon request by the European Commission[4] concluded that **if PFAS are not intentionally added in the manufacturing, packaging materials were tested to be compliant with the three concentration limits in Article 5 (5)** of the PPWR (PPWR FAQ, Question 14).[3]

Furthermore, only packaging that tested above the second and third limits (targeted PFAS) was also above the first limit (total fluorine). Therefore, **samples that are tested compliant with the first limit can be assumed to comply with the other two** (PPWR Commission Notice, Section 5).[2]

These aspects are considered in the testing approach detailed in the Annex.

5 Information to be provided along the supply chain

Where PFAS are not intentionally used, compliance may be demonstrated through a documented **chain of custody approach** for the raw materials used, combined with a **risk assessment of the converter's own manufacturing processes** for the potential presence of PFAS. In such cases, no additional analytical testing of the converted product is normally required to demonstrate compliance provided that appropriate and traceable documentation is available. Analytical testing may nevertheless be performed on a voluntary basis, in particular where considered useful as part of product-specific risk management, according to the information in the Annex.

FINAT recommends that converters supplying labels intended for use in food packaging applications:

- obtain appropriate **declarations from suppliers of raw materials** stating that PFAS are not intentionally used in those materials;
- perform an **assessment of the potential use of PFAS** in production equipment and processing aids, and other materials used in their own manufacturing processes; and
- make relevant information enabling the conformity assessment available to their customers as part of the provided **technical documentation**.

Where PFAS are intentionally used, or where a documented chain of custody cannot be adequately demonstrated, **analytical testing following a stepwise approach is strongly recommended** (see Annex) to generate the data necessary to support the conformity assessment. In such cases, information on the presence and, where applicable, the quantified

[4] Skedung, L. and Bjarnemark, F. A Harmonized Workflow for PFAS Compliance Testing under EU Packaging and Packaging Waste Regulation and Emerging Universal Restrictions: A Food Contact Packaging Case Study. Study summary. Presentation available to FINAT members upon request.

The association for the European label industry
PO Box 85612 | 2508 CH The Hague | Netherlands | +31 (70) 312 39 10
info@finat.com | www.finat.com | VAT NL 8015.78.929.B01

amount of PFAS should be transmitted to the manufacturer responsible of performing the conformity assessment on the complete packaging unit.

What information needs to be supplied to customers?

Is a supplier required to provide full analytical PFAS test reports to customers?
No. The PPWR does not establish a general obligation for suppliers to systematically provide full analytical test reports along the supply chain. What is required is that sufficient information is made available to enable the manufacturer to demonstrate conformity of the packaging in accordance with the Regulation.

Must analytical evidence exist even if full reports are not shared?
Yes. While full analytical reports do not normally need to be transmitted as part of routine technical documentation, the underlying analytical or technical evidence supporting compliance statements should exist and be retained by the relevant economic operator. Such evidence may need to be made available upon request, for example to customers or market surveillance authorities.

When may sharing analytical test results become necessary?
Sharing analytical results may be necessary where PFAS are intentionally used, where a documented chain of custody cannot be demonstrated, or where quantitative information is required to perform the conformity assessment of the complete packaging unit. In these cases, transmitting relevant test results or summarized quantitative data supports the manufacturer's legal obligations.

Does FINAT recommend routine testing for all label materials?
No. FINAT does not recommend routine analytical testing in all cases. Testing is considered a risk-based tool and is particularly relevant where compliance cannot be demonstrated through documentation and process assessment alone, or where it is needed to substantiate specific regulatory claims.

6 Stock exhaustion of PFAS-containing raw materials

There is no cut-off date limit for selling, using or holding stock of **raw materials** containing PFAS. The PFAS limits laid down in Article 5(5) PPWR apply only to food contact packaging; packaging intended for other products is not subject to this requirement.

There is no provision for a transitional period for stock exhaustion for **food contact packaging** containing PFAS: food contact packaging where PFAS exceed the specified limits shall not be placed on the market **after 12 August 2026**.

Placing on the market occurs when a product is made available in the EU for the first time, meaning there is a "transfer of ownership, possession or any other property right" by the manufacturer or an importer. It "does not require the physical handover of the product", but requires that the manufacturing stage has been finalised; an offer or agreement concluded before manufacture is completed does not constitute placing on the market (Blue Guide, section 2.3).[5]

[5] European Commission, Blue Guide, OJ C 247, 29 June 2022.

The association for the European label industry
PO Box 85612 | 2508 CH The Hague | Netherlands | +31 (70) 312 39 10
info@finat.com | www.finat.com | VAT NL 8015.78.929.B01

In the context of packaging and packaged goods, sales packaging is placed on the market only once it is filled and subject to a first transfer of ownership, possession or other property right. By contrast, service packaging (e.g. point-of-sale) and transport packaging are considered placed on the market when supplied empty (Commission Notice, point 5).[2]

Consequently, for packaged food products placed on the market by a manufacturer established in the EU, the relevant timestamp for placing on the market is the date on which ownership, possession or another property right of the already filled packaged products is first transferred (for example, by invoicing), irrespective of the actual delivery date. Conversely, filled sales packaging that remains in the stocks of the manufacturer or filler and has not yet been supplied for distribution, consumption or use is not considered placed on the market.

In the case of products imported from outside the EU, the relevant timestamp for placing on the market is, as a general rule, the 'release for free circulation' at the end of the customs procedure.

The association for the European label industry
PO Box 85612 | 2508 CH The Hague | Netherlands | +31 (70) 312 39 10
info@finat.com | www.finat.com | VAT NL 8015.78.929.B01

Annex

Stepwise approach to PFAS testing where testing is deemed necessary

Label converters and their suppliers may seek analytical evidence to support compliance with Article 5(5) PPWR, either by own interest or upon request by customers. FINAT recommends to follow a stepwise, risk-based testing approach aligned with current Commission guidance and industry practice.

The recommended approach is as follows:

1. **Initial screening: Total Fluorine (TF)**
    - Quantify the total fluorine content of the packaging article (or, where appropriate, representative samples) using combustion ion chromatography (CIC).
    - Where the total fluorine content is below 50 ppm (mg/kg), the **packaging article can be considered compliant** with the PFAS limits in Article 5(5) PPWR.
    - If the total fluorine content exceeds 50 ppm, differentiation between inorganic and organic fluorine is necessary; proceed to step 2.
2. **Differentiation of organic and inorganic fluorine**
    - Additional analytical methods may be applied to determine whether the fluorine is of organic or inorganic origin, for instance using pyrolysis-gas chromatography mass spectrometry (pyrolysis-GC/MS).
    - If organic fluorine remains below 50 ppm, the **packaging is considered compliant with the total PFAS limits**.
    - If organic fluorine content exceeds 50 ppm, targeted PFAS analysis is necessary; proceed to step 3.
3. **Targeted PFAS analysis as a final step**
    - Only where necessary, targeted PFAS analysis (including analysis of oxidisable precursors) may be used to assess compliance with the 25 ppb limit for individual PFAS and the 250 ppb limit for the sum of targeted PFAS (excluding polymeric PFAS). This can be achieved, for instance, using liquid chromatography with tandem mass spectrometry (LC-MS/MS).

A list of laboratories able to perform these analyses is available from FINAT upon request.

The European Commission is developing a guidance for testing of PFAS in food packaging, which is expected to be released in June 2026.

The association for the European label industry
PO Box 85612 | 2508 CH The Hague | Netherlands | +31 (70) 312 39 10
info@finat.com | www.finat.com | VAT NL 8015.78.929.B01