

YOUR ADELPHE GUIDE

GRAPHIC PAPER

> Your 2026 eco-contribution helping to reduce the environmental impact of your graphic paper



Contents

interactive



- Working together to protect the environment
- Your 2026 eco-contribution
- Schedule and deadlines
- Rate by tonnage
- Calculating the weight of papers
- Specific rules
- **Bonuses & Penalties for 2026**
 - Presentation of bonuses & penalties for 2026
 - Understanding bonuses and incentives
 - Understanding penalties
- **Recyclability tests**





Interactive guide

Click on content to navigate quickly and easily in the document

Any questions?

- You can find answers to frequently asked questions in the Help Centre section of your
- (Adelphe client portal), along with handy resources including guides, eco-design tips, and materials to help you make sense of the regulations
- > Lucinda, Julie and Anne are available to talk to you in person
- > Monday to Friday:
- (? a) +33 (0) 809 108 108 9 am to 6 pm uninterrupted
- entreprises@adelphe.fr





Working together to protect the

environment

Adelphe has been state-approved for over 30 years, helping you to meet your obligation under the French Environmental Code of reducing, sorting and recycling your graphic paper.

Joining the Adelphe community means taking action for the common good.

Every year you pay an eco-contribution tailored to your business sector, which helps protect the environment.

Unlike a tax, your eco-contribution is used for just one purpose: reducing, sorting and recycling your graphic paper. And nothing else!

It allows each and every one of you to meet your legal obligations which stipulate that if you generate waste, you're responsible for funding its management. This is the polluter pays principle referred to in French law as "Responsabilité Élargie du Producteur" (Extended Producer Responsibility).



This information is provided subject to official approval by the public authorities.

Should any new changes to regulations come into force, this may lead to an update of these rates.

What does your eco-contribution fund?

You contribute financially, we take action to improve your graphic papers and household packaging's circularity.

COLLECTION AND SORTING

Supporting local authorities with packaging waste collection, sorting centre operation, and recyclable material processing and recovery.

INITIATIVES FOR THE SCHEME

R&D, support with eco-design.

LITTER AND OUT-OF-HOME COLLECTION

Combating litter/adapting the sorting system to cater for consumption on the go.

SUPPORT AND **OPERATIONS**

Supporting member companies and local authorities. Adelphe's internal operating costs.

ENGAGEMENT

Raising awareness of responsible habits (sorting, reuse) among the general public and young people.

REUSE

Financial support to develop reuse throughout France.

PLASTIC PACKAGING



Implementation of sorting. secondary sorting and recycling operations for plastic packaging.



> Key milestones after the rate is published

2025

October:

Publication of the 2026 Adelphe Guide.

You can start preparing ahead for your 2026 contribution.

2026

During the year

Perform the necessary trade-offs to obtain bonuses and avoid penalties.

Collect the data you need to complete your declaration.

November:

Start of the less than 5 tonnes declaration period.

Prepare for submitting a detailed or simplified declaration by downloading the declaration forms in the Adelphe client portal

2027

From January to end of February:

Declaration period for graphic papers placed on the market in 2026.

It's time to submit your declaration form.

New for 2026

What will change in 2026?

- > A 4% increase in the rate per tonne
 - This is due to:
 - a rise in tonnages collected by local authorities and, as a result, an increase in the support required to recycle the paper collected
 - a decline in tonnage placed on the market
 - the revision of flat-rate reductions. which has reduced the quantity of tonnages subject to contributions, regardless of the tonnages collected by the Public Waste Management Service
- A minimum invoice fee has been introduced for joining Adelphe Household **Packaging and Paper**

To cover the cost of taking on your regulatory obligations, a minimum invoice fee of €110 excl. tax is now payable under your contract, regardless of the volumes you place on the market

Withdrawal of the 'Mineral oil' penalty

The Order of 13 April 2022 has replaced this penalty through its stipulation that, with effect from 1 January 2025, the use of mineral oils in any printed materials intended for the general public is prohibited if the concentration by mass in the ink exceeds 0.1%

GOOD TO KNOW

Instructions and inserts in packaging are graphic paper.

They should be declared with other graphic paper and not in the packaging declaration.

Example: information leaflet for medicines.

If you are unsure, contact us.

> Which rate applies to your declaration?

Identify the rate that applies to you according to the tonnage of graphic paper placed on the market annually by your company:

Less than 5 tonnes per year

Between 5 and 25 tonnes per year

More than 25 tonnes per year

GOOD TO KNOW

You get access to Adelphe Services whichever declaration applies to you:

- > We take on your legal obligations and obtain your unique identifier for you
- > Enjoy dedicated support weekdays to get answers to all your queries
- > You have access to the online Adelphe client portal) with all the services it offers (proof of registration, invoice history, eco-design resources, Info-tri (sorting info) tool, etc.)
- > Enjoy access to all our tools and services, regulatory insights and information on topics that are key to understanding the challenges you face.

Contribution exemption

Certify your situation in just a few clicks in the Adelphe client portal

> €0 of paper contribution

€110 excl. VAT

minimum charge invoiced under your Adelphe household packaging and graphic paper agreement

You have two choices:



Simplified declaration

- Just declare vour tonnages and paper category
- No further details are required

€94 excl. VAT

per tonne

+5% surcharge

Detailed declaration

Enter all the information required to apply the bonus, incentive and penalty criteria.

€94 excl. VAT

per tonne +/- Bonus, incentive, penalty

Detailed declaration

Enter the information required for papers placed on the market by your company.

Bonus, incentive and penalty criteria are applied to encourage you to opt for more sustainable papers.

€94 excl. VAT

per tonne +/- Bonus, incentive, penalty

A shared minimum invoice fee has been introduced for registering with Adelphe Household Packaging and Paper

New for 2026

To cover the cost of taking on your regulatory obligations, **a minimum** invoice fee of €110 excl. tax is applied as under the contract.

This minimum invoice fee covers both declarations (Household Packaging and Graphic Paper).

Examples:

- > You placed **0 packaging items** and < **5 tonnes of paper**on the market: you pay a minimum invoice fee of €110 excl. tax
- > You placed on the market < 10,000 household packaging items and < 5 tonnes of paper: you pay a minimum invoice fee of €110 excl. tax
- > You completed a **simplified or expert declaration** for your packaging and placed < 5 tonnes of paper on the market: you only pay your packaging contribution
- > You completed a **simplified or detailed declaration** for your graphic paper and placed **0 household packaging items** on the market: you only pay your paper contribution
- > You completed a simplified, detailed or expert/CSU-based declaration for your household packaging and graphic paper: you pay both contributions as usual

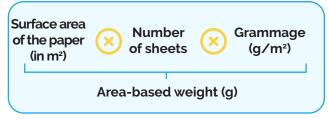


How to calculate the weight of your end product

You declare the weight of the end products you placed on the market. In other words, the weight of the paper and any other elements included in your products (inks, adhesives, staples, etc.).

If you know the weight of the elements included in the paper to be declared

Calculation:

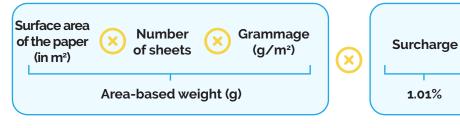




Weight of constituent elements



Calculation:





Example: a four-page document made up of two A4 sheets (21 cm x 29.7 cm) with a grammage of 170 g/m²:

- > Area-based weight (g) = Surface area (m²) x number of sheets x grammage $(g/m^2) = 0.21 \times 0.297 \times 2 \times 170 = 21.2 g$ Its theoretical weight, based on its surface area and grammage, is 21.2 g.
- If you don't know the weight of the other elements which make up your product (inks, adhesives, staples, etc.) you should add 1% to your result: weight to declare = 21.2 + 1.01% = 21.4 g





You organise the recycling of your graphic papers yourself. To reward you for taking this initiative, you have the option of optimising your contribution in one of two ways:

The rebate

You can benefit from a rebate (discount) on your contribution for graphic papers for which you organise end-of-life recycling.

To be eligible for the rebate, you need to meet the following five criteria:

- Mark Be an Adelphe member
- ✓ Provide proof to show the full traceability of your recycled tonnages
- Provide a valid and detailed recycling certificate
- Submit all the elements requested by Adelphe to quarantee the efficiency of the paper recycling process
- Accept any quality control audits of your recycling process operators and obtain their agreement for such audits

The rebate applies as follows:

It is calculated based on your gross-weight-based contribution, before any bonus, incentive or penalty is applied. It is capped at the overall amount of graphic paper. you have placed on the market.

You apply for the rebate via a separate form and receive a credit note in return.

For packaging placed on the market in 2026, a rebate rate of 73% is applied to your contribution. In practice, this means that you can get a discount equivalent to 73% of the amount of your contribution. You can also ask for retroactive rebates for items placed on the market in 2024 and 2025, with a rebate rate of 81% for 2024, and 75% for 2025.

Flat-rate reduction

A flat-rate reduction is a discount applied to the tonnages declared for the year, so that only the actual tonnages collected from households are taken into account.

Abatement rates vary according to the category of paper concerned. Rates have been updated, and the new rates will be applicable from 1 January 2026:

- ☑ The rate is -13% for category 'Paid-for press on newsprint' (compared to -10% before)
- ☑ The rate is -28% for category 'Magazine press' (compared to -15% before)
- ✓ The rate is -43% for category 'Copy paper' (compared to -37,6% before)
- ☑ The rate is -43% for category 'Envelopes and mailing bags' (compared to -37,6% before)



You cannot apply for both a reduction and a flat-rate reduction (abatement).



New for 2026

Rates are increasing

2026 Bonuses, Incentives & Penalties

For those submitting a detailed declaration



Summary of the

2026 Bonuses/Penalties

How to claim bonuses

Lower your contribution by helping to protect natural resources and raising public awareness on good sorting habits.

FIBRE ORIGIN



Paper containing over 50% recycled fibres



PROMOTING GOOD SORTING HABITS

Incentive for making public interest information inserts available free of charge, as long as you submit a request to Adelphe teams.

Find out more



publications



Printed paper or graphic paper

Up to **100**%

of the annual contribution amount due Up to 20%

of the annual contribution amount due



Technical eligibility criteria for this incentive are laid down by decree



How to avoid penalties

Avoid placing graphic papers that meet the following criteria on the market, as they are not circular-friendly enough.

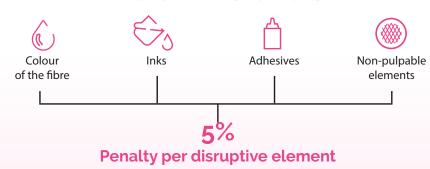
FIBRE ORIGIN



Materials that are non-renewable or not traced



RECYCLING DISRUPTORS



Up to three recyclability penalties may be applied at any one time.



NEW FOR 2026

The 'Mineral oil' penalty has been removed given the statutory ban on using inks with over 0.1% mineral oils in them if the printed material is intended for the general public.



Why this bonus?

In addition to the environmental benefits of using recycled fibre (less water and energy consumed during production), the use of recycled fibre needs to be encouraged in line with the recycling incentive.

The use of recycled paper helps to reduce environmental impact. However, the integration rate of waste paper amounts to an average of 42.6% (source: Copacel) in national production.

How to claim the bonus

To be eligible for the 'recycled' bonus, you must be able to prove that your paper product has a recycled fibre content of at least 50%.

How to determine your product's recycled fibre content

- For paper products made of one type of paper, please refer to the paper's technical data sheet showing its recycled fibre content.
- > For products made of several types of paper, you need to calculate the total content using the following method:

Example of a paper product with the following characteristics:

- > The cover is made of 100% recycled paper and accounts for 5% of the document's weight
- Some of the inside pages are made of virgin paper and account for 35% of the document's weiaht
- > The other inside pages are made of 80% recycled paper and account for 60% of the document's weight
- > A product made with 50% or more recycled fibres is eligible for the 'recycled' bonus
- > A product made with less than 50% recycled fibres is not eligible for the 'recycled' bonus

Recycled fibre content

(5% x 100) + (35% x 0) + (60% x 80)



53% of recycled fibre



THIS PAPER PRODUCT IS ELIGIBLE FOR THE 'RECYCLED' BONUS.

This bonus encourages you to use a combination of fibres with a recycled fibre content of at least 50% to protect our natural resources.



Cellulose fibre can be recycled up to five times on average.

Beyond this, it loses its mechanical properties and can no longer be used by itself. That's why adding virgin fibres is essential for maintaining quality and ensuring production continuity.

Adelphe encourages the use of paper sourced from sustainable forest management (SFM), which guarantees that new fibres are sourced responsibly. They are mixed in with recycled fibres in proportions required by the circular economy for paper.

SUPPORTING DOCUMENTS

If you declare tonnages that are eligible for the 'recycled' bonus, you must be able to prove that recycled fibre is incorporated in the paper used to manufacture your products (papers' technical data sheets) and also provide evidence of its levels in the composition of your products.

Labels with a proven recycled fibre content ≥ 50%:

- ✓ FSC® Recycled or FSC® Mixed with recycled content ≥ 50%;
- ✓ PEFCTM certified with recycled content ≥ 50% and PEFCTM Recycled
- **The Blue Angel**



Incentive for supplying information inserts

Following the publication of Decree no. 2023-906 of 28 September 2023, an incentive has been introduced to encourage the use of information inserts aimed at raising public awareness of waste prevention and management.

How to claim this incentive

This incentive is based on the free supply of inserts offering public interest **information** on waste prevention and management.

The visuals to be used for these information inserts are strictly regulated and are provided by Adelphe.

You must also meet the criteria listed on the next page.

You can find these insert incentive visuals in the Resources section of the **Adelphe client portal**) for Graphic Paper:

> Help & Contact > Resources > Search bar: 'Visuals for the insert incentive'.



How to apply for this incentive

If you wish to receive this incentive, you need to complete your declaration and then figure out which of your publications meet the criteria listed above.

You need to submit a sworn declaration to us via the Adelphe client portal This declaration is the supporting document used for applying the incentive amount.

The incentive is granted within 30 days of submission of evidence regarding the supply of information inserts and compliance with provisions.



- By 28 February 2026 at the latest: you will need to have submitted your 2025 graphic paper declaration
- Throughout 2026 you will need to add the information inserts to your publications in compliance with your 2025 declaration
- Market Between December 2026 and January 2027: you will need to send us a sworn declaration giving detailed information about your 2026 publications containing an information insert.
- ✓ End of January 2027: we will readjust your invoices by deducting the insert incentive amount awarded.

NON-PRESS PAPER CATEGORIES

PRESS PAPER* CATEGORIES (I-17A, I-17B, I-17C)

Conditions for awarding this incentive

- > Information insert appearing within the same publication published year in year out and for which the publication wishes to benefit from the incentive
- ▶ 100% recycled fibre content
- Less than 3,000 km** total distance between the paper supplier, printing site and main distribution centre
- Information insert appearing within the same publication and for which the publication wishes to benefit from the incentive
- Minimum recycled fibre content of:
 - 75% for press publications printed on newsprint paper
 - 10% for other press publications
- The remaining fibre must be sourced from sustainable forest management (SFM)
- Less than 3,000 km or 1,500 km** (see the cap for the incentive) total distance between the paper supplier, printing site and main distribution centre

Focus on the formatting criteria to

- ✓ Use the visuals provided by Adelphe for 2025
- The weight and size of the paper carrying the information insert must be lower than or equal to the weight and size of paper not carrying information inserts
- The insert must cover a minimum non-divisible area of 156 cm²
- Inserts must include the statement: Cet encart d'information est mis à disposition gratuitement au titre de l'article L.541-10-18 du code de l'environnement (This information insert is provided free of charge in accordance with Article L. 541-10-18 of the French Environmental Code). This statement must be visible on the paper
- The insert must comply with the terms of use applicable to Adelphe creations (terms of use available upon request)
- N.B. The insert cannot be published online on a website.

Incentive amount

be met

The value of an insert supplied on a given graphic paper medium is set at 50% of the public rate, if there is one, and is determined on a case-by-case basis if no public rate exists.

If the value of the inserts supplied exceeds the amount of the incentive, especially if the total cost of inserts at public rates exceeds the amount of the incentive, Adelphe will not reimburse the surplus. The amount in excess of the incentive cannot be deducted from your contribution for the subsequent year.

Incentive cap

The incentive can represent up to 20% of the total annual contribution payable per product.

The incentive can represent up to:

- > 100% of the total annual contribution payable per publication for a distance of < 1,500 km**
- > 75% of the total annual contribution payable per publication for a distance of between 1,500 km and 3.000 km**

^{*} Under this scheme, the term 'press publication' denotes any paper medium used for disseminating thought, made available to the general public, issued at least once a quarter and with no more than two thirds of its area devoted to classified ads, other advertisements and judicial and legal notices (paid-for press on newsprint, free news publications, magazine press)

^{**} To calculate distances, go to the 'How do I calculate overall distances?' question in the Help Centre section of your Adelphe client portal.



Penalty - Source of the unsustainable material

The goal of this penalty is to encourage the use of materials that are recycled or derived from sustainable forest management (SFM), by penalising the use of materials that are non-renewable or of unknown origin.

Penalty for materials that are non-renewable or not sustainably managed

Why apply this penalty?

The use of materials that are non-renewable or not sustainably managed (e.g. fibre of unknown origin) has dropped significantly since the introduction of eco-modulation.

With this incentive, we are encouraging producers to source virtuous paper derived from SFM or recycled fibre.

Is my paper concerned?

Graphic products that do not have a traceability record or are produced on substrates made up of a material other than cellulose fibre, such as those mainly made of plastic (any type of resin) or mineral material, are subject to this penalty.

Unless you can prove that the material in question is:

- Renewable and sustainably managed
- > Recyclable in a stream available at industrial scale (according to the AGEC Law)
- > Available for materials collected by French local authorities
- Recoverable (energy recovery and compostable/digestible)

This is to ensure that its use does not entail less circularity than a paper print medium made from cellulose fibres.

This proof can be provided by submitting to Adelphe, on a case-by-case basis, study reports (in French or English) carried out by third parties which are independent from the material producer.

How can you avoid this penalty?

To protect the environment, opt for paper that's recycled or sourced from sustainably managed forests.

May you remembered to comply with the regulation against deforestation and forest degradation (EUDR)? Find out more about this (legislation

Penalty exemptions for fibres derived from SFM

Why are such fibres exempt?

Fibres derived from SFM are traced, which ensures forests are sustainably managed in a socially and environmentally responsible way. To encourage their use, if you can prove your paper is derived from SFM you will be exempt from this penalty.

SFM origin criteria

For your paper product to be considered of SFM origin, you must be able to provide proof of certification or accreditation relating to the use of fibre from sustainably managed forests.

ACCEPTED DOCUMENTARY PROOF

- **✓** For products certified by a scheme such as FSC®, PEFCTM or equivalent: proof of compliance with the specifications of the certification used (chain of custody number, proof of marking)
- ✓ For eco-labelled products: proof of compliance with European Ecolabel specifications
- For products made of eco-labelled paper: technical data sheet of the papers they contain

Penalty - Recycling disruptors

Fibre colour penalty

Mass-dyed paper (coloured paper)

Paper made of mass-dyed cellulose fibres.

Which products can contain this disruptor?

- > Mailing, direct mail, business mail
- Letterhead papers and administrative forms
- Personalised envelopes and mailing bags
- Leaflets

- Decorative paper
- Press publications
- Copy paper
- > Envelopes and mailing bags
- Other

Why is coloured fibre a disruptive element?

One of the main quality characteristics of graphic paper is its level of whiteness, and this also applies to recycled paper.

This level is affected by the presence of residual ink particles and of coloured cellulose fibres. However, although recycled paper production processes include a de-inking step to extract ink particles from the paper pulp, there is no way of extracting coloured fibre from the pulp.

What are the implications for paper recycling?

The presence of mass-dyed paper requires the implementation of processes to bleach the paper pulp, which consume chemicals and generate significant additional costs.

How can you avoid this penalty?

Opt for a white fibre. If you can prove to Adelphe that you have achieved a score of 5 in the Dye Test, your mass-dyed paper may be eligible for a penalty exemption.

Penalties are applied to discourage the use of elements that may disrupt the paper recycling process and downgrade paper quality.

Kraft paper

Paper made of unbleached cellulose fibres.



Which products can contain this disruptor?

- > Personalised envelopes and mailing bags
- Decorative paper
- > Envelopes and mailing bags
- Other

Why is kraft paper a disruptive element?

Kraft paper is made from naturally brown virgin fibre that has not been bleached. Once de-inked, it remains brown and negatively impacts the colour of recycled paper. The de-inking process is not designed to bleach this type of fibre. Bleaching is an additional process carried out by paper mills.

What are the implications for paper recycling?

Unlike mass-dyed fibres, kraft fibre cannot be bleached during the recycling process. If kraft-type fibres are present, they may turn the graphic paper stream brown, thus compromising efforts to produce white paper.

How can you avoid this penalty?

Only use kraft paper in circumstances that require its specific mechanical properties. Remember that kraft paper cannot be bleached during a graphic paper recycling process.

Penalty - Inks

UV offset

Paper product printed with UV offset inks.

Examples: HUV, UV LED, etc.



Which products may be affected by these disruptive elements?

- Advertising leaflets
- > Brand magazines, publications by businesses and public entities
- Mailing, direct mail, business mail
- Letterhead papers and administrative forms
- > Advertising inserts not indicated in table of contents of a publication
- Envelopes and mailing bags whether personalised or not
- Posters
- > Press publications
- Other

Why are these inks disruptive elements?

These inks, which are increasingly popular, generate black specks which are hard to remove during the de-inking stage.

What are the implications for paper recycling?

The quality of the recycled pulp is insufficient for graphic applications: the paper contains coloured particles that are visible to the naked eye.

How can you avoid this penalty?

Choose inks that dry less quickly on paper.

In addition, if your printed material meets the criteria of the European Ecolabel for printed paper or if you can provide CITEO with proof of a score > 70 in the INGEDE 11 Test), you will be exempt from the 'UV offset' penalty.

Flexographic printing

Paper product printed (in full or in part) using a flexographic process.



Which products may be affected by this disruptive element?

- > Envelopes, whether personalised or not
- Press publications
- Envelopes and mailing bags > Other

Why is flexographic printing a disruptive element?

Almost all flexographic inks are water-based and their pigments are highly dispersive during the pulping phase.

What are the implications for paper recycling?

These inks cannot be eliminated by flotation and they significantly impair the whiteness of the pulp, while also significantly colouring the process water, which is very expensive to treat.

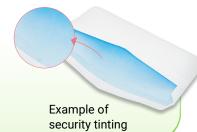
Experts even believe that flexographic ink could pose a threat to the entire de-inking sector if its concentration increases significantly.

How can you avoid this penalty?

Use as little ink as possible for printing in order to reduce the impact on the whiteness of recycled papers, and opt for printing processes that are more compatible with de-inking. In addition, if your printed material meets the criteria of the European Ecolabel for printed paper or if you can provide Adelphe with proof of a score > 70 in

the (INGEDE 11 Test), you will be exempt from the

'flexographic printing' penalty.



> Penalty - Inks (cont.)

Ink jet printing

Paper product printed (in full or in part) using an ink-jet process.

Which products may be affected by these disruptive elements?

- > Mailing, direct mail, business mail
- Receipts
- Other

Why is ink-jet printing a disruptive element?

De-inking processes are based on flotation technology, drawing on the hydrophobic nature of the vast majority of ink particles. However, the inks used for ink-jet printing tend to be non-hydrophobic.

What are the implications for paper recycling?

Most ink-jet prints cannot be de-inked. However, there are two different categories:

- > Pigment-based inks that behave in a similar way to water-based flexographic inks As such, these inks cannot be de-inked;
- > Dye-based inks As some dyes are sensitive to the bleaching agents used in deinking facilities, they can be de-inked.

However, it is difficult to predict which inks are actually de-inkable.

Tests are required on a case-by-case basis.

How can you avoid this penalty?

- Contact your printer for more information, as there are existing combinations of paper, ink and printers that make de-inking easier
- In addition, if your printed material meets the criteria of the European Ecolabel for printed paper or if you can provide Adelphewith proof of a score > 70 in the INGEDE 11 Test), you will be exempt from the 'ink-jet printing' penalty

N.B. Printed material for which only the address blocks are ink-jet printed (customised postal addresses) are exempt from the 'ink-jet printing' penalty.



There used to be a penalty for mineral oils, but now their use in printed material intended for the general public is governed by legislation.

What does the law say?

Article 112 of the Anti-Waste Law for a Circular economy (AGEC Law of 10 February 2020) bans the use of mineral oils on paper in France.

Since its publication, the article has been supplemented by an implementing decree (no. 2020-1725 of 29 December 2020 - Articles D. 543-45-1 and D. 543-213) and a ministerial order of 13 April 2022

Maximum levels of MOSH and MOAH applied to inks

| 1 JANUARY 2023 | 1 JANUARY 2025 |
|--|---|
| Only applies to unsolicited advertising leaflets | Applies to all paper |
| MOAH 1-7 aromatic rings <1% | MOAH 1-7 aromatic rings <0.1% or MOAH 3-7 <1 ppm MOSH C16-C35 <0.1% |

- > The ban applies to printing inks
- All printing processes are concerned
- Audits may be carried out before printing or on finished products. Audits are carried out on documents mainly. Find out more
- > One year to comply from each effective date

Penalty - Adhesives

Paper products to which an adhesive is applied, whether for finishing, binding or closing purposes or for fixing inserts.

Examples: envelope-sealing adhesives, assembly adhesives, sample/insert adhesives, etc.



Which products may be affected by this disruptive element?

- Advertising leaflets (e.g. fold-gluing)
- > Brand magazines, publications by businesses and public entities
- Mailings, direct and business mail (envelope adhesive)
- > Press inserts not indicated in table of contents of a publication
- > Personalised envelopes and mailing bags
- Decorative paper
- > Press publications
- Envelopes and mailing bags
- Other

Why are adhesives disruptive elements?

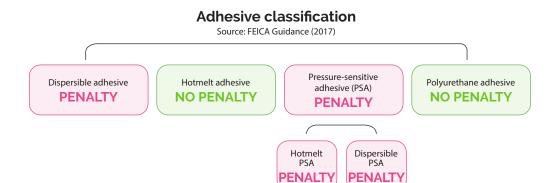
During the recycling process, the adhesive films found in recovered paper break into fragments and give rise to small particles with varying sizes and degrees of stickiness. These particles, known as 'stickies', are only partially eliminated, and a number of them end up in the final recycled pulp which is then fed into the paper machine.

What are the implications for paper recycling?

The resulting clumps disrupt the process in various ways and may make it necessary to stop and clean the machines. Furthermore, the "stickies" contained in the pulp may alter the quality of the paper produced (appearance of black dots on the sheet and holes caused by some of these particles being torn away in the machine).

Which adhesives are concerned by the penalty?

All adhesives are subject to the penalty, with the exception of hotmelt non-PSA adhesives and polyurethane (PUR) adhesives. These adhesives generally score over 70 in the INGEDE 12 test and are therefore exempt from the penalty.



How can you avoid this penalty?

Use adhesive-free binding methods: staples, fasteners, spiral binding, etc. These are easier to remove during the recycling process.

For adhesives used to close envelopes:

If your printed material meets the criteria of the European Ecolabel for printed paper or if you can provide Adelphe with proof of a score > 70 in the (INGEDE 12 Test) or a dispersibility level score ≥ 8, you will be exempt from this penalty

Penalty - Non-pulpable elements*

UV VARNISH

Printed material, some pages of which (generally the cover) have a varnish finish requiring UV lamp drying.

Which products may be affected by this disruptive element?

- Brand magazines, publications by businesses and public entities
- Sales catalogues
- Leaflets

- Posters
- Decorative paper
- > Press publications
- Other

Why is UV varnish a disruptive element?

When a UV varnish dries, the cross-linking phenomenon (chemical binding of molecules to each other) helps to seal the varnish on the substrate almost immediately, but it also makes these cross-linked molecules more difficult to remove during the recycling and de-inking processes.

What are the implications for paper recycling?

The main problem when de-inking UV varnish is the formation of coloured particles that are visible to the naked eye and make it impossible to produce pulp of sufficient quality for graphic applications.

How can you avoid this penalty?

Opt for acrylic varnishes that are less shiny and don't disrupt the recycling process.

Plastic components and wet-strength papers



Non-paper materials (i.e. in which cellulose fibre is not the majority material) incorporated in products, and wet-strength (WS) paper.

Examples: cover film coatings, plastic windows, plastic covers, mineral print media (commonly referred to as 'stone paper' or 'mineral paper'), etc.

Which products may be affected by these disruptive elements?

- Advertising leaflets
- Directories
- > Brand magazines, publications by businesses and public entities
- Mailing, direct mail, business mail
- > Sales catalogues
- Posters

- Personalised envelopes and mailing bags
- Decorative paper
- Receipts
- Press publications
- Envelopes and mailing bags
- Other

Why are plastics and WS paper disruptive elements?

The presence of non-pulpable items in paper products has a negative impact on the recycler's fibre efficiency, i.e. the quantity of recycled paper that can be produced from a tonne of paper recovered and purchased by the recycler.

What are the implications for paper recycling?

The more non-pulpable items in the recovered paper, the smaller the quantity of recycled paper produced. As such, this increases the relative cost of the raw material and the cost of processing recycling waste.

How can you avoid this penalty?

- The penalty does not apply to non-pulpable binding items (adhesive for perfect binding, spirals, seams, staples, etc.).
- For the rest, avoid adding plastic and water-strength paper elements that make recycling more difficult.

^{*}Non pulpable elements: components of a paper product that do not break down into cellulose fibres in the pulper and cannot be incorporated into pulp during recycling.

Penalty - Non-pulpable elements (cont.)

Inserts and films/blisters

Non-paper inserts that are an integral part of a product (they don't detach from the paper product when shaken), or plastic film used to distribute the product.

Examples: CD-ROMs, samples, plastic cards, films/blisters, etc.

Which products may be affected by these disruptive elements?

- Advertising leaflets
- Directories
- > Brand magazines, publications by businesses and public entities
- Mailing, direct mail, business mail
- Sales catalogues

- > Advertising inserts not indicated in table of contents of a publication
- Leaflets
- > Press publications
- Other

Why are inserts and shipping films disruptive elements?

The presence of non-pulpable items in paper products has a negative impact on the recycler's fibre efficiency, i.e. the quantity of recycled paper that can be produced from a tonne of paper recovered and purchased by the recycler.

What are the implications for paper recycling?

The more non-pulpable items in the recovered paper, the smaller the quantity of recycled paper produced. As such, this increases the relative cost of the raw material and the cost of processing recycling waste.

How can you avoid this penalty?

- Inserts which are not attached to (not an integral part of) the paper product are exempt from the penalty.
- > Financial transaction inserts are also exempt from the penalty (credit cards, payment cards, etc.).
- For the rest, avoid adding plastic elements and accessories that make recycling more difficult. Refrain from attaching inserts to paper products, thus facilitating separation during collection and sorting operations.



Overview of disruptive elements per

paper category

This table presents the main paper products concerned by the contribution. Under each category, find the elements that disrupt the recycling process and therefore incur a penalty.

DISRUPTIVE ELEMENTS

| | COLOUR | JRED FIBRE ADHESIVES INKS NON-PO | | ES INKS | | NON-PULPAB | N-PULPABLE ELEMENTS | | |
|--|--------------------|----------------------------------|-----------|-----------|--|-------------------------------|---------------------|---|--|
| PAPER CATEGORIES | Mass-dyed paper | Kraft | Adhesives | UV offset | Non-de-inkable flexographic printing | Non-de-inkable and ink-jet | UV varnish | Non-pulpable elements: plastic and wet- strength | Non-pulpable elements: inserts and blisters |
| Free advertising newspapers (I-01) | | | | | | | | | |
| Advertising leaflets (I-02) | | | • | | | | | • | |
| Directories (I-03) | | | | | | | | • | • |
| Brand magazines, publications by businesses and public entities (I-04) | | | • | • | | | • | • | • |
| Mailings, direct and business mail (I-05) | • | | • | • | | • | | • | • |
| Letterhead papers and administrative forms(I-06) | • | | | • | | | | | |
| Sales catalogues (I-07) | | | | | | | | • | |
| Advertising inserts not indicated in table of contents of a publication (I-08) | | | • | • | | | | | • |
| Personalised envelopes and mailing bags (I-10) | • | • | • | • | • | | | • | |
| Leaflets (I-13) | | | | | | | | | |
| Other (I-12) | | | • | | | | | • | |
| Posters (I-14) | | | | | | | | • | |
| Decorative paper (I-15) | | | • | | | | | • | |
| Payment receipts (I-16) | | | | | | | | • | |
| Press publications (I-17) | | | | | | | | | |
| Copy paper (V-01) | • | | | | | | | | |
| Envelopes and mailing bags (V-02) | | • | • | | | | | • | |

Recyclability test

Find out if a penalty applies to your papers



De-inking printed products

> INGEDE 11 Test

The INGEDE 11 Test is a laboratory method developed by the International Association of the De-inking Industry (INGEDE). It is designed to assess a printed product's de-inkability.

Principle

The process involves artificially ageing the printed product being tested, then reconstructing the repulping stage in a laboratory (mixing paper in water to extract the polluting elements from the cellulose fibres).

The pulp obtained during this phase is then de-inked by flotation: the ink particles stick to the air bubbles that pass through the paper pulp before rising to the surface.

The optical properties of the de-inked pulp (luminescence, colour, cleanliness) are scored together with various other parameters, such as ink elimination and blackening. The overall score, which is the sum of all the individual scores, will then reflect the de-inkability of the tested product.

Ranking based on the scores obtained

| SCORE | ASSESSMENT | PENALTY |
|----------|--|---------|
| 71 - 100 | Good | No |
| 51 - 70 | Insufficient | Yes |
| 0 - 50 | Poor | Yes |
| > 0 | Unacceptable (perhaps without de-inking) | Yes |

If you have an INGEDE 11 test with a score > 70 for paper with a given grammage, it is also valid for the same paper with a higher grammage provided it is printed with the same technology and the same inks.

IMPORTANT

Important information for carrying out this test

> Sample size 1 kg of homogeneous printed products per analysis

Budget (for information only) The estimated cost of performing an INGEDE 11 Test is less than €1,500 excl. tax per test.

Removal of adhesive

> INGEDE 12 Test

The INGEDE 12 Test is a laboratory method developed by the International Association of the De-inking Industry (INGEDE). It is designed to ensure that the adhesives found in paper/cardboard products are compatible with the recycling process.

Principle

The process involves reconstructing the cellulose fibre repulping stage in a laboratory (mixing paper in water to extract the polluting elements).

The resulting pulp is filtered to capture the stickies (adhesive particles). The size and quantity of these stickies are then given two scores which, taken together, determine a final score to rank the tested products.

Ranking based on the scores obtained

| SCORE | ASSESSMENT | PENALTY |
|----------|--------------|---------|
| 71 - 100 | Good | No |
| 51 - 70 | Insufficient | Yes |
| 0 - 50 | Poor | Yes |
| > 0 | Unacceptable | Yes |



Testing for recycling compatibility

Dispersible Adhesive Test

This new laboratory test, developed by the Pulp and Paper Research & Technical Centre (CTP) in collaboration with Adelphe and its parent company Citeo, seeks to measure the level of disruption caused by 'dispersible' adhesives to the recycling process. An adhesive is considered to be compatible with the recycling process if its level of disruption is very low.

Principle

The test is carried out in two stages.

Measurement of the adhesive's dispersibility level

The recycling compatibility of low-dispersion adhesives must be determined by means of the INGEDE 12 test.

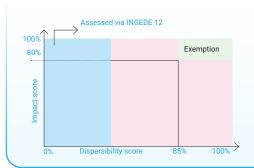
For high-dispersion adhesives, the impact level is measured according to 5 criteria:

- Organic matter contribution (10% of the score)
- Anionic material contribution (10% of the score)
- Resistance to agglomeration caused by shearing (20% of the score)
- Resistance to agglomeration caused by calcium (20% of the score)
- Coagulation can be tested using a coagulant polyelectrolyte (40% of the score)

The test may be carried out downstream: assessment of the final document containing the adhesive (please note that downstream testing is not applicable for fold-gluing applications, please refer to upstream testing). The test may be carried out upstream: in this case, only the adhesive is assessed.

Ranking based on the scores obtained

Adhesives can only be exempt from the penalty if they have a dispersibility score ≥ 85 and an impact score ≥ 80. Penalty exemptions for adhesives with a lower dispersibility score are determined by the score in the INGEDE 12 Test (see page 24).



IMPORTANT

Important information for carrying out this test

> Sample size required:

- For downstream testing, 1 kg of homogeneous printed products per analysis
- For upstream testing, 1 kg of adhesive

Testing for recycling compatibility

Dye Test

This test is designed to assess the sensitivity to bleaching agents of a dve used in the production of mass-dved paper.

Principle

The process involves repulping coloured paper in water then bleaching the pulp. After bleaching, pulp cakes or sheets are produced and characterised on the basis of their optical properties. A score is then given according to the resulting degree of discolouration in order to rank the tested products.

Ranking based on the scores obtained

| SCORE | ASSESSMENT | PENALTY |
|-------|--|---------|
| 5 | More than 90% colour reduction (almost no dye colouring remaining in the pulp) | No |
| 4 | Between 75% and 90% colour reduction | Yes |
| 3 | Between 50% and 75% colour reduction | Yes |
| 2 | Between 25% and 50 % colour reduction | Yes |
| 1 | Very slight discolouration (hardly any change) | Yes |

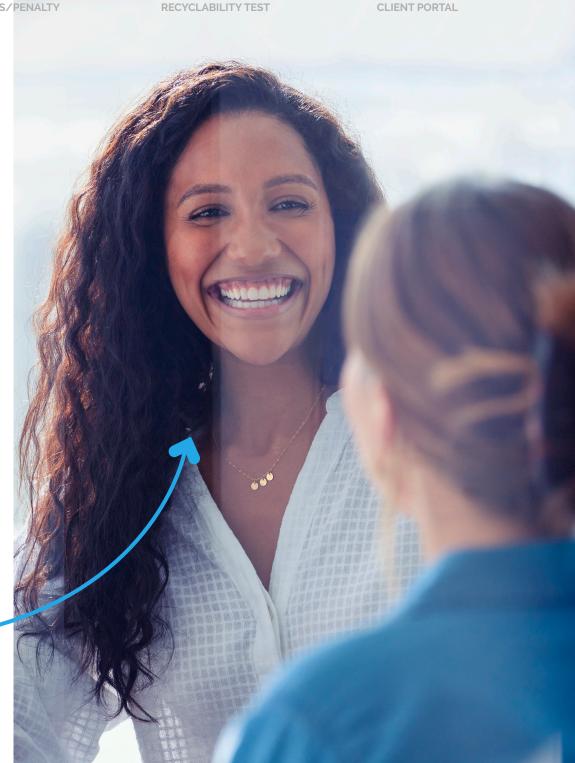
This scoring system is used by several suppliers.



In contrast to the INGEDE 11 and INGEDE 12 tests, no test protocol is recognised by the de-inking sector as a whole. However, the Dye Test is used by major dye producers.



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Your dedicated client portal



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Don't wait, give them access now!

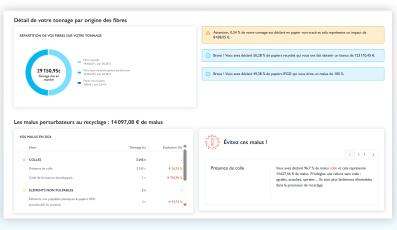
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Data from your declaration is used to generate an impact report, which you can access for a personalised summary of the environmental impact of your papers.



The report is accessible to main contacts and declaration contacts in Adelphe client portal account.

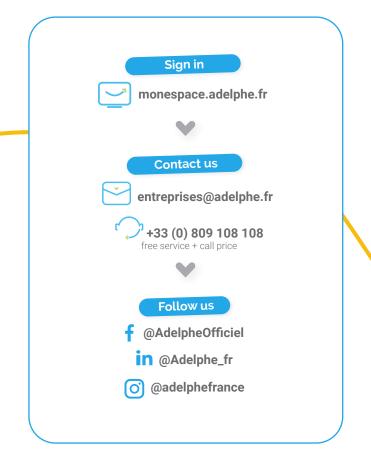




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