
PRODUCT INFORMATION



Extreme PSO SF

The ink series is a modern all-round series designed for a wide range of applications. It is mineral oil-free, semi-duct fresh and formulated based on renewable raw materials.

This Extreme PSO SF series has been evaluated according to the Cradle to Cradle™ product standard and awarded the PLATIN level.

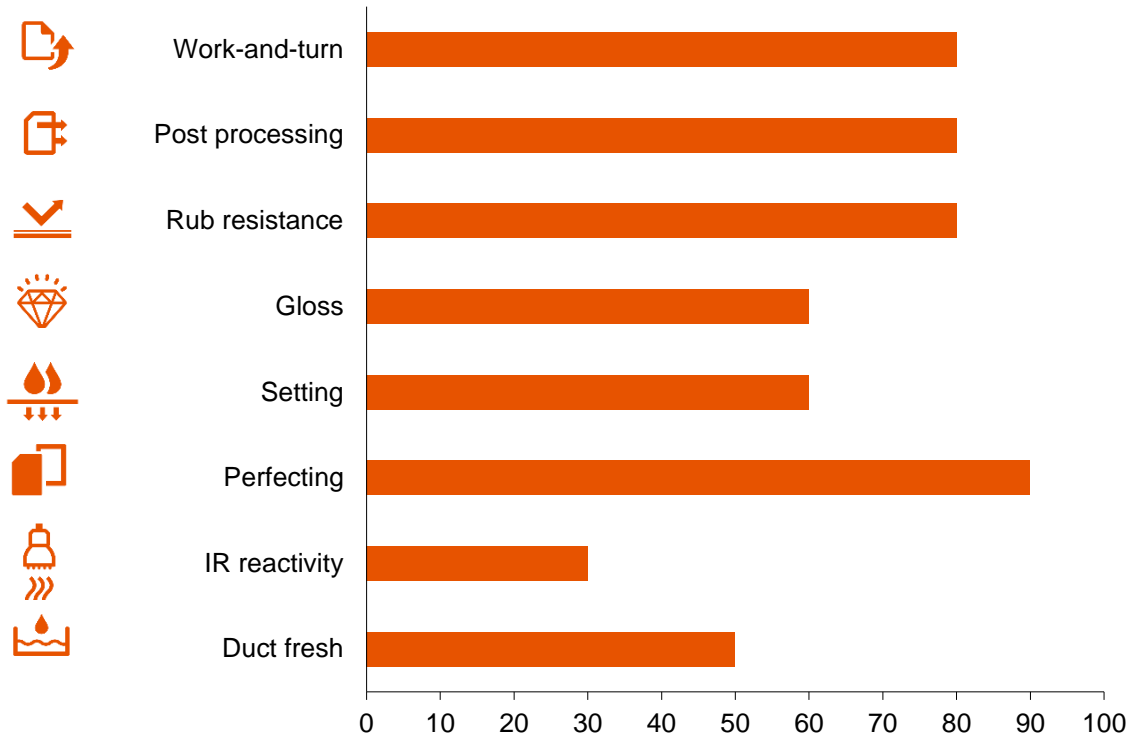
This ink series fulfils following criteria

- Cobalt-free
- Suitable for all types of perfecting machines
- Suitable for absorbent substrates
- Good deinkability
- Superb printability and runability
- Superb rub resistance
- Medium setting
- Very good ink/water balance
- Not recommended for printing on food packaging

NORMS

- Conforms to the requirements of ISO 2846 and ISO 12647-2 and achieves a neutral grey balance with corresponding tonal range
- Suitable for manufacturing toys in accordance with the general chemical safety requirements in Annex II of the Toy Safety Directive 2009/48/EC and the migration limits specified in the standard EN 71-3

PROPERTIES



FASTNESSES

		Item No.	Light	Transp	Spirit	Nitro	Alkali
Extreme PSO SF	Y	122615	5	+	+	+	+
Extreme PSO SF	M	122616	5	+	+	+	-
Extreme PSO SF	C	122617	8	+	+	+	+
Extreme PSO SF	B	122618	8	-	+	+	+
Extreme PSO SF	Y*	134714	6-7	+	+	-	+

+ property given

- property not given

* The C2C-MHC PLATIN status can only be achieved using the colour yellow 134714, whose colour shade does not correspond to the standard process yellow due to the pigment used in order to achieve the ISO 12647-2 standard

PRINTING ADDITIVES

Additives	Item No.	Dosage
Extrafit Ink Reducer	071	max. 5 %
Extrafit Ink Gel	348	max. 5 %
Extrafit Ink Dryer	2001	max. 5 %

STORAGE

- Protect from frost, heat and direct sunlight
- Store only in original containers at 10-30°C / 50-77°F
- Unopened and correctly stored, the inks have a shelf life of 24 months from the date of delivery

CERTIFICATE

- This ink series was evaluated against the criteria of the Material Health category of the Cradle to Cradle™ product standard and awarded the PLATIN level by the relevant Products Innovation Institute in San Francisco.
See also: <http://www.c2ccertified.org/products/mhcertificate/cc-printing-ink-series>
- This ink series is suitable for printing with 'Blauer Engel' (DE-UZ 195)

Note: This technical description is intended to inform and advise you. It corresponds to our current state of knowledge. However, since the specific application depends on a number of factors over which we have no influence, no guarantee and liability for the pressure failure can be derived.



Epple Extreme PSO

ISSUED TO Epple Druckfarben AG

STANDARD 3.1

EXPIRES 24 September 2023

LEAD ASSESSMENT BODY

EPEA GmbH - Part of Drees & Sommer

PHASES AND PROCESSES CONSIDERED IN THE CHEMICAL TOXICITY ASSESSMENT

Final manufacturing, professional use; Intended end of use: recycling; Unintended end of use: landfilling, release to the environment

PRODUCTS COVERED

Epple Extreme PSO (134714, 122616, 122617, 122618)

This product was assessed exclusively for use by professional printers trained in the proper handling and use of protective equipment for sensitising and irritating inks. The requirements for certification have only been met under these conditions.

PRODUCT OPTIMIZATION SUMMARY

- Cradle to Cradle Certified*® Banned List compliant
- Material Health optimization strategy not required
- No exposure from carcinogens, mutagens, or reproductive toxicants
- VOC emissions testing not required for this product type
- Product is fully optimized - does not contain any GREY or x-assessed chemicals
- Process chemicals have been identified and none are GREY or x-assessed

PERCENTAGE OF
 CHEMICAL SUBSTANCES
 ASSESSED BY WEIGHT

100%

Inventory threshold for chemicals in each material = 100 ppm

ASSESSMENT RATINGS
 BY WEIGHT



a or b: 30-50%



c: 46.2-100%



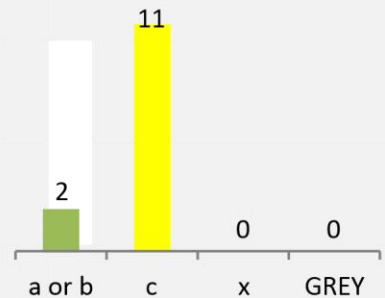
x: 0%



GREY: 0%

% CHEMICAL SUBSTANCES

PRODUCT
 OPTIMIZATION



13 CHEMICAL SUBSTANCES

Material Health Certificate Guide

The Material Health Certificate is awarded to products assessed against the requirements in the Material Health category of the *Cradle to Cradle Certified*[®] Product Standard. The Material Health achievement level (Basic, Bronze, Silver, Gold, or Platinum) is shown in the certificate's upper right corner. A Material Health Certificate does not indicate that a product is *Cradle to Cradle Certified*[®], which requires assessment against all five Standard categories.

The *Cradle to Cradle Certified*[®] Material Health Assessment Methodology is a contextual assessment based on chemical hazard identification and qualitative exposure considerations during a product's final manufacture, use, and end-of-use. The exposure assessment is highly simplified and more conservative compared to a conventional, quantitative risk assessment.

Definitions of Administrative Fields

Field	Definition
Issued To	Company that sells the assessed product(s).
Assessed By	Assessment Body responsible for conducting the product assessment.
Expires	Date the certificate expires. Certificate renewal is required biennially.
Standard	Version of the Standard (Material Health subsection only) the product was assessed against.
Phases and Processes Assessed	Manufacturing, use, and end-of-use phases and processes that the assessor considered in the exposure portion of the Material Health assessment. Assessment results are only valid for those listed.
Products Covered	Products included in the scope of the certificate. Certificates may cover multiple product variations.

Definitions of Product Optimization Summary Fields

***Cradle to Cradle Certified*[®] Banned List compliant**

The product's materials are not known to contain chemicals on the Banned Lists of Chemicals above permitted thresholds.

Material Health optimization strategy developed

Plan developed to phase out x assessed chemicals and assess GREY content.

No exposure from carcinogens, mutagens, or reproductive toxicants

Assessed materials do not contain carcinogens, mutagens, or reproductive toxicants with plausible exposure routes.

Meets VOC emissions testing requirements

The product meets the volatile organic compound (VOC) emissions testing requirements described in the Standard.

Does not contain any GREY or x-assessed chemicals; product is fully optimized

The product's materials contain chemicals with only a, b, or c risk ratings (no GREY or x). (Note: In the *Cradle to Cradle Certified*® Material Health Assessment Methodology, chemicals in each material are assigned a, b, c, x, or GREY risk ratings. Each material is then assigned an A, B, C, X, or GREY final assessment rating based on the risk ratings of its constituent chemicals. The following table explains the rating system.)

a or b (A or B)	Optimal
c (C)	Moderately problematic, but acceptable for use
x (X)	Highly problematic; targeted for phase out
GREY	Considered unassessed due to unknown identity or lack of toxicity information

Process chemicals have been identified and none are GREY or x-assessed

All process chemicals have been assessed and received an a, b, or c risk rating (no x-assessed or GREY).

Percentage Assessed by Weight

For single-material products, the cumulative percentage of assessed chemicals (a, b, c, and x). For other products, the cumulative percentage of assessed materials (A, B, C, and X). When a certificate represents a group of products, a percent range is shown.

Assessment Ratings by Weight

For single-material products, the percentage of a or b (shown in green), c (shown in yellow), and x (shown in red) assessed chemicals. For other products, the percentage of A or B (shown in green), C (shown in yellow), and X (shown in red) assessed materials. When a certificate represents a group of products, percent ranges are shown.

Product Optimization

Number of materials (or chemical substances for single-material products and multi-material product groups with uncountable color variations) assigned each assessment rating.

Cradle to Cradle Certified® is a trademark of the Cradle to Cradle Products Innovation Institute All other marks are the property of their respective owner.