



Ref. FH21 — Bisphenol-free top-coated thermal paper

Bisphenol-free FSC top-coated thermal paper / FH21 super-permanent rubber-based hot-melt adhesive / YG60 glassine liner

DESCRIPTION

Standard-sensitivity top-coated thermal paper, with no back barrier, produced without bisphenols. It offers good resistance to moisture and is more sensitive to scratching than a conventional paper. The facestock carries FSC Mix Credit certification. The FH21 super-permanent rubber-based hot-melt adhesive holds ISEGA approval for indirect food contact. The liner is a cream supercalendered glassine.

QUICK SUMMARY

Facestock: FSC top-coated thermal paper, 74 g/m²
Adhesive: FH21 super-permanent rubber-based hot melt
Liner: Cream supercalendered glassine YG60, 56 g/m²
Printing: Direct thermal, no ribbon required

Key points

- Bisphenol-free
- Operating temperature: -40 to +60 °C
- Minimum labelling temperature: 0 °C
- Printing speed of up to 200 mm/s
- Shelf life: 2 years

KEY ADVANTAGES

- Produced without bisphenols.
- Facestock with FSC Mix Credit certification, supporting responsible forest management.
- Good moisture resistance.
- FH21 adhesive with ISEGA approval for indirect food contact.
- Adhesive with high initial tack, good performance at low temperature and good adhesion to a wide variety of substrates, including non-polar surfaces.
- Printing speed of up to 200 mm/s, with a typical image density of 1.4 O.D.

RECOMMENDED APPLICATIONS

- Thermal labels requiring water resistance.
- Indirect food contact applications, within the scope of the FH21 adhesive's ISEGA approval.
- Labelling in moderately humid environments.
- High-speed direct thermal printing.

PRINTABILITY

Direct thermal printing: the image is formed by the printhead, with no ribbon required. The material is also compatible with UV and water-based flexo, UV letterpress and UV offset. Maximum printing speed of 200 mm/s, typical image density of 1.4 O.D. and black imaging colour. Exposure to temperatures above 50 °C may activate the thermal layer. Prolonged contact with



moisture, oils, greases or plasticisers and exposure to intense sunlight may cause image fading, and the facestock is more sensitive to scratching than that of a conventional paper.

MATERIAL STRUCTURE

LAYER	CODE	DESCRIPTION
Facestock	Thermal Top FSC	Top-coated thermal paper, bisphenol-free. 74 g/m ² and 78 µm. Whiteness of 88 %. FSC Mix Credit.
Adhesive	FH21	Super-permanent rubber-based hot melt. High initial tack. ISEGA approval for indirect food contact.
Liner	YG60	Cream supercalendered glassine. 56 g/m ² and 49 µm. Transparency of 48 %.

PHYSICAL PROPERTIES

PROPERTY	STANDARD	UNITS	VALUE	TOLERANCE
Facestock grammage	ISO 536	g/m ²	74	—
Facestock thickness	ISO 534	µm	78	—
Facestock whiteness	ISO 2470	%	88	—
Liner grammage	ISO 536	g/m ²	56	—
Liner thickness	ISO 534	µm	49	—
Liner transparency	ISO 2469	%	48	—
Liner tensile strength MD	ISO 1924	kN/m	> 5	—
Liner tensile strength CD	ISO 1924	kN/m	> 2	—

PRINTING AND ADHESIVE

PROPERTY	STANDARD	UNITS	VALUE
Maximum printing speed	—	mm/s	200
Typical image density	—	O.D.	1.4
FH21 adhesive tack (glass)	FTM 9	N	> 11
FH21 adhesive cohesion (1 kg)	FTM 8	h	> 6



TEMPERATURES AND STORAGE

PROPERTY	UNITS	VALUE	STANDARD
Minimum labelling temperature	°C	0	—
Operating temperature	°C	−40 to +60	—
Storage temperature	°C	20–25	—
Storage relative humidity	%	40–50	—
Shelf life from date of manufacture	years	2	FINAT 2.5

CERTIFICATIONS AND COMPLIANCE

- FSC Mix Credit (DNV-COC-002145 / FSC-C106281).
- ISEGA approval of the FH21 adhesive for indirect food contact, valid for the labelling of packaged food products. For direct contact with the food itself, please tell us about the application before specifying this material.
- Produced without bisphenols.

STORAGE AND SHELF LIFE

Shelf life of 2 years under storage conditions as defined by FINAT section 2.5: 20 to 25 °C and 40–50 % relative humidity. Prolonged storage at higher temperatures or humidity levels will shorten the shelf life of the product.

USAGE RECOMMENDATIONS

- Not recommended for labelling curved surfaces with small diameters.
- Avoid exposure to temperatures above 50 °C, which may activate the thermal layer.
- Avoid prolonged contact with moisture, oils, greases or plasticisers and exposure to intense sunlight, all of which may cause image fading.
- The manufacturer's data sheet contradicts itself on oils and greases: the description states medium resistance, while the uses section states that it has none. Do not specify this material for such conditions without prior testing.

IMPORTANT NOTES

- The manufacturer publishes no figure for the durability of the printed image. It does state what degrades it: moisture, oils, greases, plasticisers and intense sunlight. Please tell us the conditions of your application and we will advise you.
- Manufacturer's internal reference: USC PDT0268, edition 9, approved on 27/04/2022.
- The technical specifications given are general in nature; suitability for the end use is the purchaser's responsibility.

This document is a technical data sheet for commercial use. For any advice on the suitability of the material, please contact us.