STARLETT

TECHNICAL DATA SHEET

TK HT DIGI ULTRABOND GLOSS

Profile:

Polypropylene gloss film for thermal lamination on digitally printed cardboard. Inks for digital printing machine may in fact contain components that can decrease the bond strength of conventional film laminating.



Applications:

Ideal for laminating: book covers, catalogues, posters, calendars, shopping bags, etc.

PHYSICAL PROPERTIES ± 5%	TEST METHOD	UNIT	VALUES
Thickness	Internal	micron (µm)	40
Yield	Internal	m²/kg	35
Grammage	Internal	g/m²	28, 57
Surface tension (adhesive side)	ASTM D 2578	Dynes/cm	45
MECHANICAL PROPERTIES ± 5%	TEST METHOD	UNIT	VALUES
Tensile strength MD – TD	ASTM D 882	kg/mm ²	15 - 30
THERMAL PROPERTIES ± 5%	TEST METHOD	UNIT	VALUES
Heat shrinkage (120°c, 15 min.) MD - TD	ASTM D 1204	%	3, 5 – 1, 4
Lamination temperature	Internal	°C	100 - 120
OPTICAL PROPERTIES ± 5%	TEST METHOD	UNIT	VALUES
Gloss after lamination	ASTM E 523	0⁄0	>70
Haze	ASTM D 1003	%	<2
Transmittance	ASTM E 1164	%	>80

MD = Machine direction TD = Transverse direction

Storage Conditions: Dry, clean place (20°C, 40% of relative humidity)

<u>Disclaimer</u>: The information provided above is to the best of knowledge of the supplier. The values provided are test results, which are indicative only and provided for guidelines.

The aforementioned data are given most conscientiously but without any Obligation. Any processing details are provided merely for guidance, it is the user's responsibility to check the suitability of the product for the intended application.

Warrantee: This product has a warrantee of 70 days from the date on the invoice.

Claims after 70 days from the date on the invoice we are unable to accept. Please always have the full label details of the roll available for warrantee purposes, Without fall label details we are unable to accept or handle a claim.

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TK HT DIGI ULTRABOND GLOSS Declaration of Compliance

In relation to materials intended to come into contact with foodstuffs

SIA StarLett declares that the base film used to make the TK HT DIGI ULTRABOND Bopp gloss lamination film for digital printing, has a composition in accordance with the following regulations concerning packaging intended for direct contact with foodstuffs:

- **Regulation (UE) n° 1935/2004** of 27 October 2004 on materials and articles intended to come into contact with food.

Regulation (EC) n° 2023/2006 - European Regulation n° 10/2011 and amendments on materials and plastic articles intended to come into contact with foodstuffs.
German Food regulations 2005 (LFGB), Section 31

OVERALL MIGRATION LIMIT:

The TK HT DIGI ULTRABOND GLOSS Bopp film complies with the overall migration limit laid down by commission regulation (EU) N° 10/2011 returning values of 10mg/dm2. The tests were performed according to the European standard EN 1186-1:2002.

The migration tests were performed according to the following laboratory conditions:

Food simulants	Test conditions	Detection limit	Results
3% Acetic acid	10 days at 40°C	3,0mg/dm2	N.D.
95% Ethanol	10 days at 40°C	3,0mg/dm2	4,60mg/dm2
Isooctane	2 days at 20°C	3,0mg/dm2	3,70mg/dm2

N.D. = Not Detected

SPECIFIC MIGRATION LIMITS ON HEAVY METAL

The TK HT DIGI ULTRABOND GLOSS Bopp film contains monomers and additives subject to specific migration limits as defined by Regulation (EU) N° 10/2011. Below is the list of these substances and their limits. These values were obtained with simulant 3% Acetic Acid at 40°C for 10days

Chemical substances	Values	SML
barium	0,3mg/kg	1mg/kg
cobalt	0,01mg/kg	0,05mg/kg
copper	0,3mg/kg	5mg/kg
iron	0,3mg/kg	48mg/kg
lithium	0,5mg/kg	0,6mg/kg
manganese	0,3mg/kg	0,6mg/kg
zinc	0,5mg/kg	25mg/kg

RESPONSIBILITIES By following the above-mentioned Regulations, SIA StarLett have fulfilled their duty of care regarding the conformance of the TK HT DIGI ULTRABOND GLOSS film supplied with legislation governing food contact applications. It is the responsibility of the user / processor to verify the suitability of the film for the intended application. SIA StarLett accepts no liability for damages or losses due to inadequacy or inappropriateness of the film to the food used.