TECHNICAL DATA SHEET



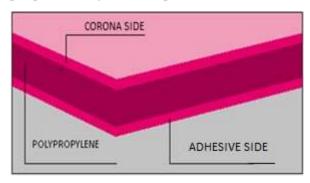
TK25 GL GLOSS (Bopp)

Profile:

* Extrusion-coated biaxially oriented polypropylene gloss film with a low temperature melting adhesive resin on one-side for thermal lamination of film to paper products by heat and pressure.

Features:

- *Good optical properties
- *Good machinability
- *Good Fiber tear bond strength to paper
- *Good resistance to elongation & tear
- *Suitable for printing, UV Varnishing, hot foil stamping and gluing (initial tests prior to actual job are recommended



Applications:

*Thermal lamination with all kinds of printed & unprinted paper and paperboards such as book covers, posters, magazines, boxes, paper bags menu cards, diaries, ect....

TYPICAL PROPERTIES ± 3%	UNIT	TEST METHOD	VALUES.
Thickness	μm	ASTM D 374	25.5
Unit Weight	g/m²	internal	23.4
Yield	M²/kg	ASTM D 4321	42.74
Density	g/cc	internal	0.92
Gloss $(45^\circ) \sim (60^\circ)$ film side	%	ASTM D 2457	58 ~ 95
Surface tension film side / adhesive side	Dynes/cm	ASTM D 2578	39 ~ 42
Coefficient of friction (Kinetic)	film / film	internal	0.2 > 0.25
Recommended laminating temperature	°C	internal	95 ~ 120

Storage conditions: For best film performance, keep in normal room temperatures between $18 \sim 21^{\circ}$ c and 40% relatively normal humidity and away from direct sunlight.

<u>Disclaimer</u>: The producer bases the information provided above on conclusive tests, these values are test results, which are indicative only and provided as guidelines.

<u>Ultralen®</u> registered trademark

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.

<u>Note!</u> Changes made to the film's original identity such as; applying a surface coating or extrusion coating. This is done at the customers own risk, it is the customer's responsibility to check the film is suitable before a surface coating or extrusion coating is to be done. Claims cannot be accepted after the film has been surface coated or extrusion coated.

<u>Warrantee</u>: This product has a warrantee of 180 days from the date on the invoice; claims after 180 days from the date on the invoice cannot be accepted. Please always keep the full label details of the roll available for warrantee purposes, without full label details claims cannot handle or accept.

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DECLARATION OF COMPLIANCE

The manufacturer / producer of the TK25 GL GLOSS film type has confirmed that this film is manufactured in compliance with;

A. Commission Regulation (EU) N° 10/2011 of the 14th January 2011 on plastic materials and articles intended to come into contact with food, (with all amendments: Commission Regulation (EU) N° 321/2011; Commission Regulation (EU) N° 1282/2011; Commission Regulation (EU) N° 1183/2012; Commission Regulation (EU) N° 202/2014; Commission Regulation (EU) N° 174/2015; Commission Regulation (EU) N° 1416/2016, 752/2017 complied. Commission Regulation (EU) N° 79/2018, Commission Regulation (EU) N° 213/2018 complied, Commission Regulation (EU) N° 831/2018 complied, Commission Regulation (EU) N° 37/2019 and Commission Regulation (EU) N° 1338/2019.

Compliance with threshold values:

. Overall Migration Limits

Testing as per EU N° 10/2011

Stimulant used	Test Condition	Result (mg/dm²)	Reporting Limit (mg/dm²)	Permissible Limit (mg/dm²)
3% Acetic acid	10 days at 40°C	Not detected	2.0	10
10% Ethanol	10 days at 40°C	Not detected	2.0	10
20% Ethanol	10 days at 40°C	Not detected	2.0	10
50% Ethanol	10 days at 40°C	Not detected	2.0	10
Isooctane	10 days at 40°C	Not detected	2.0	10

. <u>Specific Migration Limit (SML)</u>

Name of Substance	CAS N°	(SML) Restriction Limit (mg/kg)
Homo-polymer	9003-07-0	No restriction
Copolymer	24937-78-8	No restriction
Silica	7631-86-9	No restriction

B. . Dual use additives

E-number Substance E 551 Silicon Dioxide (SiO2)

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C. Compliance to Regulation EU 1935/2004:

The Manufacturer/Producer confirms that the plastic materials or articles, products from intermediate stages of manufacture or the substances meet the relevant requirements laid down in this Regulation and in Article 3, 11(5), 15 and 17 of Regulation (EC) N° 1935/2004

D. Compliance to Regulation 2023/2006:

This film type is manufactured in compliance with EU Regulation 2023/2006, Good manufacturing practice / GMP for materials, articles intended to come into contact with foodstuffs.

E. US FDA Compliance:

This film type is manufactured in compliance with US FDA CFR 177.1520 (Olefin Polymers).

F. REACH Compliance:

The Manufacture/Producer declares that this film type is manufactured in compliance with the REACH regulation (EC) N° 1907/2006. This film type fulfills all requirements of this regulation. This mentioned Bopp grade film type does not contain any "substances of very high concern" ("SVHC") which is updated every six months. Please request the separate updated REACH & SVHC Declaration for clarification.

G. GMO, Bisphenol A:

The Manufacturer/Producer confirms GMO (Genetically Modified Organisms) are not added to or in this film type. According to the information received from the suppliers the additives and PP homo-polymers, copolymers and coated material used for the production of this film type does not contain any Genetically Modified Organisms (GMO) and Bispenol A.

H. EN 71-3, Migration of certain elements. (Safety of toys)

Heavy Metals and Halogens:

The raw materials used in the production of this film type, PP homo-polymer, PP co-polymer and master batches based on the mentioned resin do not contain heavy metals such as Cadmium, Hexavalent Chromium, Lead, Antimony, Nickel, Tin, Arsenic, PBB, PBDE, and Mercury as tested in this film type. Neither the said Heavy Metals, Halogens nor their compounds are intentionally added during the production of this film type, nor are they used, directly in the production process itself.

I. ROHS:

Restriction of Hazardous Substances.

With Regards Ultralen Quality Management

05.08.2020