

# **TECHNICAL DATA SHEET**

2013 / 42

## Ref.

Range

Embossing (Top / underside)

## Composition

- Polypropylene sheet
- Halogen free, no substances that can damage the ozone layer
- Inert waste, non toxic and 100% recyclable
- Decomposition products by fire : carbon dioxide CO2, vapour H20

CLASSIC

Opaque

Sand\* / pearl

## Chemical properties

- Resistant to water, fats, alcohols and some solvents.
- Polypropylene can swell if exposed to certain solvents.
- Polypropylene along with several other plastics, can be distorted by some conventional litho inks. If the Priplak<sup>®</sup> is to be used within a litho printed job, avoid litho inks with mineral oil distillate. Vegetable / Soya based inks or similar are known to work well. Check with your ink supplier. Perform trials if in any doubt.

## **Physical properties**

Properties	Units	Test method**	Values**	Tolerances
Thickness	μm	ISO 4593	280 à 2000	+0,02mm / -0,03mm
Density	g/cm³		0,91 (except white 060)	+/- 0,01 g/cm <sup>3</sup>
Flexural Elastic Modulus	MPa	ASTM D 790 tested on 500µm sample	850	+/-5%
Tensile strength at failure	N/mm <sup>2</sup>		> 20	
Elongation at failure	%		> 100	
Tensile Impact test	KJ/m <sup>2</sup>	ISO 8256 tested on 500µm sample	230	
Elmendorf Tear resistance	mN	ISO 1974 tested on 500µm sample	5400	+/-3%

\*\* These values are given as indicative for a standard quality and based on the standards mentioned.

#### Sheets size tolerance

Sheet size :	0/+5mm ( machine and cross direction ) option of guillotine trimming
Sheet flatness :	5mm on both sides

The physical properties of the material will change with the temperature conditions.

Near or below 0°C, the material will become brittle. Therefore, for low temperature applications, please contact us for a specific product.

As a thermoplastic, the material may loose stiffness, with increasing temperatures. It may also swell. These changes are noticeable around 70°C.The Melting point of our product is around 140°C.

## **Use conditions**

• Acclimatisation at room temperature 24 to 48h after delivery

Pallets not to be stacked.

## Printing on Priplak®

#### Printing UV technology

- Priplak is corona treated on both sides to enable it to be printed in UV offset, UV screen, and UV digital.
- At the time of production, the surface energy is above 46 dynes/cm but this declines over time. We recommend that Priplak is printed within 6 months from the date of production- for embossed grades, and 3 months for gloss products. (Exact production date is on the label). Keeping the material in its original wrappers and stored in a place without wide variations in temperature or high humidity is very important. We recommend testing the suitability of the material prior to printing.
- Priplak suggest 4 sides trimmed material for automatic feeding. Our products are treated with an antistatic agent to help with feeding and reduce dust.
- Priplak recommend using inks that are specifically formulated for polypropylene. For more information please contact your ink supplier. Trial / test runs are always advised.
- A UV varnish or sealer is suggested to help protect the image and reduce scratching.

#### Other printing technology

Conventional screen (1 pack or 2 packs inks.) Priplak® can be printed with a surface tension below 40 dyne/cm. It is recommended to test before printing.

\*Chevrons patterns may be visible on dark colours, on sand side

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## **TECHNICAL DATA SHEET**

Assembling

cyanoacrylates

when in contact with Priplak®.

• For glueing, we recommend 2 different types :

hot melt polyurethane reactive (PUR)

hot air welded...

## Cutting / Creasing on Priplak®

- Priplak recommend converting the material at temperature around 20°C.
- Cutting and creasing are possible on manual and auto-platens, as used in the cardboard industry. Creasing is mainly done "cold", i.e. normal working conditions. It can also be done with heat for high thickness or special cases.
- Use of semi-cutting blades for creasing is not advisable for Priplak® because they may generate an initial tear.
- In any case, the creasing process lengthens the material, and it is necessary to take this into account during the tooling design and manufacture.
- Cutting Priplak® in smaller sizes than delivered, especially A4 size and smaller, can release tension within the sheet, that can cause curl.

## **Compliance with legislation**

Colour	toy norm EN 71/3	food regulation Directive 2002/72/EC	Coneg norm Directive 1994/62/EC	RoHS Directive 2002/95/CE	
White 050	✓	~	√	✓	
White 060	✓	~	~	✓	
Yellow 155	✓	~	✓	✓	
Orange 250	~	~	~	✓	
Flame red 345	✓	~	√	✓	
Ice blue 419	✓	~	~	✓	
French blue 450	✓	~	✓	✓	
Royal blue 465	✓	~	~	✓	
Oslo blue 476	✓	~	✓	✓	
Duck green 548	~	~	~	✓	
Green 550	✓	~	√	✓	
British green 585	~	~	~	✓	
Ivory 608	✓	~	✓	✓	
Ash grey 822	~	~	~	~	
Anthracite 860	✓	✓	✓	✓	
Other colours	Please contact us				

Toys norm : NF EN 71-3 (March 1995)

• Priplak® can be glued, screwed, punched, perforated, sewn, ultrasonic /

• If Priplak® is in contact with printed surfaces (Priplak® used as cover) or

laminating, we recommend that you test Priplak® compatibility with the

other products involved. Indeed, some glue components, and inks contai-

ning a proportion of distillates, used in paper printing, can generate curl

relating to safety of toys - Part 3 : migration of certain elements.

Food regulation : comply with Directive 2002/72/EC (Commission of 6 August 2002)

relating to plastics materials and articles intended to come into contact with foodstuffs as well as its successive amendments Nota bene : When legislation specifies maximum migration levels, these must always be checked on the finished product using the recognized test methods of the country concerned.

## Coneg norm (USA) & Directive 94/62/EC :

relating to packaging and packaging waste Heavy metals (cadmium, lead, mercury, and chromium (VI)) content below 100ppm.

## RoHS Directive 2002/95/EC (European Parliament and the Council of 27 January 2003) :

comply with requirements on the restriction of use of certain hazardous substances in electrical and electronic equipment. Compounds of heavy metals (Cadmium, Lead, Mercury and Chromium VI) and flame retardants (polybrominated biphenyls (PBB), polybrominated diphenyl ethers (PBDE)) have not been intentionally added in our formulation while manufacturing. Therefore, our Priplak products do not contain any of these compounds with the exception of traces

complies with the mentioned standard.

#### Storage conditions

Store in its original plastic wrapping, at a temperature around 20°C, away from light.

The information contained within this document are non contractural and are based on data given by our suppliers and on the present state of our knowledge. They are given in good faith and considered as correct. The manufacturer reserves the right to change the product, or its technical characteristics, without notice. However, as we do not control post-processing techniques and conditions of use, this is information may not be extended to end products and does not constitute a guarantee for any specific application. So, you are requested to check its validity and suitability for the intended method of converting and application.

PRIPLAK® CLASSIC is a registered trade mark of PRIPLAK.

## Not under controlled distribution

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