

## Technical Data Sheet

### PRIME-EX X2 SynPap (thick range)

**PRIME-EX SynPap** sheets are coated Synthetic paper made of polypropylene with high mineral content. Main applications are tags and labels for marking items in external environment, such as Gas containers, Tree logs, Clay pots, and generally any item which have to be stored externally and should be printed by Offset-UV.

Surface:	Fine non glair finish
Thickness $\mu\text{m}$	300-800
Thickness tolerance $\mu\text{m}$	+10/-30 $\mu\text{m}$
Color: Opacity	White 0057B 98%
Size mm	Max width 1150 max length 2500
Size and angular tolerance 90°	See Figure 1

Specific Gravity	White opaque (B)	Gr/cm <sup>3</sup>	1.1
Coefficient of thermal expansion		10 <sup>-4</sup> /K 5-80°C	1 mm for each meter for change of 10°C
Ductility transition temperature		~-20°C	High impact and tear resistance in cold temperatures
Surface treatment		Top coat on both sides	

#### Mechanical properties

Property	Method	Unit	Value
Tensile Strength at Yield MD / CD	ASTM D 638-IV	MPa	28 / 21
Elongation at Yield MD / CD	ASTM D 638-IV	%	9 / 4
Elongation at brake MD / CD	ASTM D 638-IV	%	>150/>150
Tensile modulus MD / CD	ASTM D 638-IV	MPa	1680/1400
Hardness Shore D-scale	ASTM D 2240		60
Elmendorf Tear strength CD	ASTM D1922	N	>5

All mechanical test are made on 420 $\mu$  sheet.

**Printing:** both sides of the sheet are coated. The coating increases the scratch resistance the adhesion of the ink also in wet environment.

The satin surface becomes very glossy after varnishing (with low "orange peel" effect)

The printability is guaranteed for 12 month. Check production date before printing!

**Inks:** Use inks for plastic substrates. Always check carefully if ink is suitable to the job and process.

**Cutting and creasing:** Acclimate the sheets to room temperature before converting (also in the core of the pallet). Use blades 0.7 mm thick double bevel. Crease on flat bed. Smoothness of bed is important to get high quality crease. During design stage, be aware of the sheet grain. Don't end internal cuts with straight end with radius.

**Foil blocking:** use zinc or brass stamp. Select foils suitable for PP and for the required print resolution.

**Welding:** the sheet can be welded with ultrasonic and hot plate welding. It is important to weld through the coating layer.

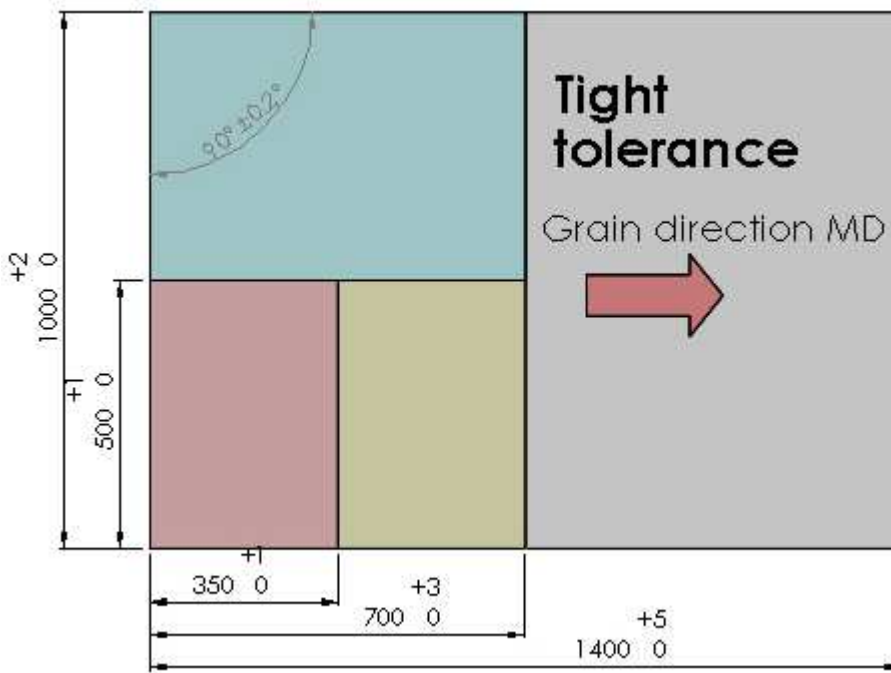
**Conformity:**

**PRIME-EX SynPap** is not suitable for direct food contact under EU.Regulation 10/2011 and amendments..

Norm	Toy safety Directive 2009/48/EC Flammability & Migration	COMMISSION REGULATION (EU) No 10/2011	RoHS Directive 02/95/EC	Heavy metals Directive 94/62/EC
	Yes	No	Yes	Yes

**Storage:** store in dry and shaded place. Do not store at temperature higher than 35°C printability deteriorates.

**Recycling:** Production rejects and waste should preferably be recycled instead of being disposed. Sheets are not biodegradable.



**Figure 2**

**Issue:** Rev. Sep. 30, 16