

## TECHNICAL DATA

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### POLYPROPYLENE MULTIWALL

POLYPROPYLENE MULTIWALL (PP) is a polymer formed from propylene monomer, mechanically resistant and reluctant to many chemical solvents, bases and acids.

Polypropylene is a type of plastic that can be molded with heat, a thermoplastic. It has similar properties to polyethylene (PE), but with a high softening point.

#### ADVANTAGES POLYPROPYLENE MULTIWALL

- High resistance to chemical products: alkalis and acids.
- High mechanical properties.
- High resistance to temperature.
- Optimal cost / quality ratio.
- Compatible with most existing processing techniques.
- It is the plastic with the lowest specific weight (0.9 g / cm<sup>3</sup>).
- It is impermeable to water.
- Good organoleptic properties.
- Easy to color.
- High resistance to fracture due to flexion or fatigue.
- Good impact resistance superior to temperatures above 15 ° C.
- Good thermal stability.
- Easy molding.

#### TYPES AND FORMATS

The standard POLYPROPYLENE MULTIWALL sheets are 3000 x 2000 mm with cellular ribbed structure in different thicknesses of 3.5 to 10 mm in white, black and blue colors. Other options are available with a minimum order.

#### APPLICATION AREAS

- Print support.
- Advertising.
- Packaging.
- Exhibitors.

## TECHNICAL SPECIFICATIONS– POLYPROPYLENE MULTIWALL

Properties	Value	Units	Standard
<b>Physical properties</b>			
Density	0,907	g/cm <sup>3</sup>	ISO 1183 Water
Water absorption	0,02	%	ISO 62
<b>Mechanical properties</b>			
Traction strength	38	MPa	ISO 527
Elongation at break	800	%	ISO 527
Traction elasticity module	1250	MPa	ISO 178
Impact strength. Charpy method	80	kJ/m <sup>2</sup>	ISO 180
Shore D hardness	66	–	ISO 868
<b>Maximum resistance to compression</b>			
2,1mm/350gr	3,7	N/cm <sup>2</sup> min.	internal
2,0mm/400gr	1,4	N/cm <sup>2</sup> min.	internal
3,0mm/650gr	5,5	N/cm <sup>2</sup> min.	internal
4,5mm/1000gr	14,4	N/cm <sup>2</sup> min.	internal
<b>Thermal properties</b>			
Dilatation coefficient	0.18	mm/m°C	ASTMD696
Specific heat	1.68	J/g°C	DSC •
Deflection temperature (0,46 MPa)	78	°C	ISO 75
Deflection temperature (1,82 MPa)	52	°C	ISO 75
VICAT softening temperature (1 kg) (10N)	148	°C	ISO 306
VICAT softening temperature (5 kg) (50N)	78	°C	ISO 306
<b>Optical properties</b>			
<b>Light transmission in clear sheet</b>			
2,0mm/400gr	58	%	internal
2,5mm/450gr	53	%	internal
3,0mm/500gr	51	%	internal
4,0mm/1000gr	37	%	internal
<b>Electrical properties</b>			
Specific resistance	ca. 10 <sup>13</sup>	Ω	ASTMD257
Dielectric constant	(a 1 MHz)	2,25	ASTMD150
Dissipation factor (tg α 1MHz)	< 5 x 10 <sup>-4</sup>	-	ASTMD150
Dielectric strength (500V/sec)	70	kV/mm	ASTMD149

The properties described here are typical values of the material. Polimer Tecnic is not responsible for the materials of a specific consignment to exactly match the given values, being able to carry out tests of that heading. The above information is based on our experience and is given in good faith. Due to some installation and processing factors that are beyond our knowledge and control, no guarantee is given regarding such information.