

FEATURES

- Excellent chemical resistance to dilute acids, cleaning agents and many solvents
- Excellent stiffness and impact strength
- Good fatigue resistance and will retain shape after a lot of bending and flexing
- Lightweight and flexible
- High purity for reduction in contamination
- Very low water absorption
- No stress crack formation
- Very good electrical insulation
- Difficult to bond but easily welded

Beige, Grey Plastic Sheet, 1000mm x 500mm x 10mm

RS Stock No.: 313-6332



RS Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

Product Description

From RS Pro a range of high-quality Polypropylene solid plastic sheets available in a range of sizes and thicknesses

General Specifications

Form	Solid
Colour	Beige, Grey
Material	Polypropylene
Laminated	Yes
Laminated Material	Acrylic; Epoxy Resin; Fine Weave Cotton; Glass Fibre
Flammability Rating	UL 94 HB
Polymer Type	Copolymer
Finish	Clear
Adhesive Backing	Yes
Applications	Applications include the following; Large-size chemistry devices and chemical apparatus, Seals, Transport boxes for food and fittings, Medical trays and handles, Body contact plates for mammography, Insulators, Ventilation ducts, Pallets, Drip pans and acid and chemical tanks, Industrial chopping boards, Packaging for consumer products

Electrical Specifications

Specific Surface Resistance	$10^{14} \Omega$
Specific Volume Resistance	$10^{17} \Omega \cdot \text{cm}$
Dielectric Constant	2.9
Dielectric Loss Factor	0.0017tg
Breakdown Voltage	17kV/mm
Dielectric Strength 23°C, 50% r.h.	58kV/mm

Mechanical Specifications

Length	1000mm
Width	500mm
Thickness	10mm
Density	1.14g/cm^3
Tensile Strength	65Mpa
Hardness	80 Ball Indentation
Water absorption	0.03%
Thermal Conductivity	0.17W/m.K
Elongation	65%
Impact Strength	12kJM^{-2}
Modulus Of Elasticity	1400Mpa
Flexural Strength	91Mpa
Compression Strength	20Mpa
Compression Modulus	2300Mpa
Ball Indentation Hardness	165Mpa
Thermal Expansion	$8 \times 10^{-5} \text{K}^{-1}$
Specific Heat	1.1J/(g.K)
Specific Gravity	1.38
Flexural Modulus	2600Mpa
Friction Coefficient	0.54
Poisson Ratio	0.38kJM^{-2}

Operation Environment Specifications

Maximum Operating Temperature	100°C
Melting Point	255°C
Glass Transition Temperature	-60°C
Vicat Softening Point	65°C

Approvals

Compliance/Certifications	CE / UR / cUR
Standards Met	DIN 50014

Polypropylene (PP) natural

Chemical Designation

PP-H (PP-H (Polypropylene Homopolymer))

Colour

white opaque

Density

0.9 g/cm³

Mechanical properties	parameter	value	unit	norm	comment
Modulus of elasticity (tensile test)		1400	MPa	DIN EN ISO 527-1	(1) n.b. = not broken
Tensile strength at yield		32	MPa	DIN EN ISO 527-1	
Elongation at yield		8	%	DIN EN ISO 527-1	
Impact strength (Charpy)		n.b.	kJ/m ²	DIN EN ISO 179-1	1)
Shore hardness	Shore D	70		DIN EN ISO 868	
Ball indentation hardness		70	MPa	ISO 2039-1	
Thermal properties	parameter	value	unit	norm	comment
Service temperature		+0 - +100	°C	-	1)
Thermal expansion (CLTE)		16	10 ⁻⁵ K ⁻¹	DIN EN ISO 11359-1;2	(1) Found in public sources. Individual testing regarding application conditions is mandatory.
Electrical properties	parameter	value	unit	norm	comment
Specific surface resistance		10 ¹⁴	Ω	DIN IEC 60093	
Dielectric strength		58	kV/mm	ISO 60243-1	
Other properties	parameter	value	unit	norm	comment
Flammability	corresponding to	B2		DIN 4102	1) (1) Corresponding means no listing. The information might be taken from resin, stock shape or estimation. Individual testing regarding application conditions is mandatory.