

FEATURES

- Extremely high chemical resistance
- Hot water resistant
- High temperature performance a high melting point of -200 to +260°C, shortterm up to 300°C
- Excellent sliding properties with low coefficient of friction
- Non-stick surface, no materials will stick to it. PTFE is also difficult to bond or weld
- High coefficient of thermal expansion (The ratio that a material expands in accordance with changes in temperature)
- Relatively low strength and rigidity
- Excellent UV and weather resistance
- Good electrical insulation properties

Opaque Plastic Sheet, 300mm x 300mm x 12mm

RS Stock No.: 197-0095



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 PTFE solid plastic sheets available in a range of sizes and thicknesses

General Specifications

Form	Solid
Colour	Opaque
Material	PTFE
Laminated	Yes
Laminated Material	Acrylic; Epoxy Resin; Fine Weave Cotton; Glass Fibre
Flammability Rating	UL 94 V-0
Polymer Type	Copolymer
Finish	Opaque
Adhesive Backing	Yes
Applications	Components that can be manufactured from this plastic include the following: Slide bearings and runners, Pump housings and parts, Valve seats, Tank linings, Roller coverings, Pipe linings, Filter housings, Etching plates, High frequency insulation, Seals

Electrical Specifications

Specific Surface Resistance	10 ¹⁶ Ω
Specific Volume Resistance	10 ¹⁷ Ω.cm
Dielectric Constant	2.1
Dielectric Loss Factor	0.0017tg
Breakdown Voltage	17kV/mm
Dielectric Strength 23°C, 50% r.h.	80V/mm



Mechanical Specifications

300mm				
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12mm				
2.18 to 2.21g/cm ³				
25Mpa				
R 118 Rockwell				
0.3%				
0.17W/m.K				
50%				
12kJM ⁻²				
2500Mpa				
91Mpa				
20Mpa				
2300Mpa				
165Mpa				
8x10 ⁻⁵ k ⁻¹				
1.1J/(g.K)				
1.38				
2600Mpa				
0.54				
0.38kJM ⁻²				

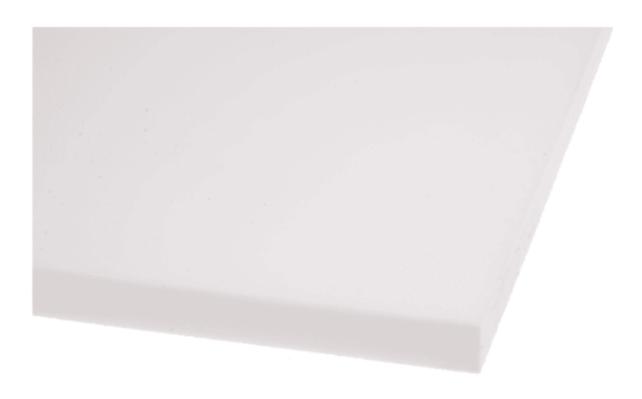
Operation Environment Specifications

Maximum Operating Temperature	260°C
Melting Point	255°C
Glass Transition Temperature	-60°C
Vicat Softening Point	65°C

Approvals

Compliance/Certifications	CE / UR / cUR
Standards Met	DIN 53479; DIN 53736; ASTM-D 1929





PTFE

Chemical Designation Con PTFE (Polytetrafluorethylene) who

Colour white opaque Density 2.15 g/cm³

Mechanical properties	parameter	value	unit	norm		comment	
Tensile strength		22	MPa	ASTMD 4894	1)	(1) Tested on extruded and	
Elongation at break		220	%	ASTM D 4894	2)	machined specimen (2) Tested on extruded and machined specimen (3)	
Compression strength	1% strain	5	MPa	ASTMD 695			
Shore hardness	Shore D	55		ASTM D 2240	3)		
Thermal properties	parameter	value	unit	norm		comment	
Glass transition temperature		- 20	°C	DIN 53765	1)	(1) Found in public sources.	
Service temperature	short term	260	°C	-	2)	(2) Found in public sources. Individual testing regarding application conditions is mandatory.	
Service temperature	long term	260	°C	-			
Thermal expansion (CLTE)	23-100°C, long.	13	10 ⁻⁵ K ⁻¹	ASTMD 696			
Thermal conductivity		0.20	W/(K*m)	ASTMC 177			
Electrical properties	parameter	value	unit	norm		comment	
Specific surface resistance		10 ¹⁶	Ω	ASTMD 257	1)	(1) Without defects	
Specific volume resistance		10 ¹⁷	Ω*cm	ASTMD 257			
Dielectric strength	In air, 0.125mm thick	80	kV/mm	ASTMD 149		•	
Dielectric constant	50-109Hz	2.1		ASTMD 150			
Other properties	parameter	value	unit	norm		comment	
Water absorption	23°C	< 0.01	%	ASTMD 570		(1) Corresponding means no listing at UL (yellow card). The information might be	
Flammability (UL94)	corresponding to	V0		DIN IEC 60695-11-10;	1)		
						" taken from resin, stock shape or estimation. Individual testing regarding application conditions is mandatory.	