

POLYCARBONATE SHEET PTFR

PRODUCT DATASHEET

DESCRIPTION

PTFR sheet is the standard Polycarbonate Flame Retardant sheet. Polycarbonate PTFR sheet combines high impact and temperature resistance with optical clarity and can be utilized for applications requiring improved fire performance. PTFR sheet can be cut, sawn, drilled and milled by using standard workshop equipment without the risk of cracking and breakage and is therefore an excellent candidate for fabricating a wide range of indoor applications such as electrical enclosures, machine guards etc.

TYPICAL PROPERTY VALUES ◆

PROPERTY	ASTM TEST METHOD	UNITS	VALUE
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	ASTM D 638	MPa	62
Tensile Stress, brk, Type I, 50 mm/min	ASTM D 638	MPa	55
Tensile Strain, yld, Type I, 50 mm/min	ASTM D 638	%	7
Tensile Strain, brk, Type I, 50 mm/min	ASTM D 638	%	90
Flexural Stress, yld, 1.3 mm/min, 50 mm span	ASTM D 790	MPa	91
Flexural Modulus, 1.3 mm/min, 50 mm span	ASTM D 790	MPa	2240
Hardness, Rockwell M	ASTM D 785	--	70
Hardness, Rockwell R	ASTM D 785	--	118
IMPACT			
Izod Impact, unnotched, 23°C	ASTM D 4812	J/m	3204
Izod Impact, notched, 23°C	ASTM D 256	J/m	640
Falling Dart Impact (D 3029), 23°C	ASTM D 3029	J	169
THERMAL			
Vicat Softening Temp, Rate B/50	ASTM D 1525	°C	151
HDT, 0.45 MPa, 6.4 mm, unannealed	ASTM D 648	°C	137
HDT, 1.82 MPa, 6.4 mm, unannealed	ASTM D 648	°C	132
CTE, -40°C to 95°C, flow	ASTM E 831	1/°C	6.84E-05
Thermal Conductivity	ASTM C 177	W/m-°C	0.19
Relative Temp Index, Elec	UL 746B	°C	130
Relative Temp Index, Mech w/impact	UL 746B	°C	120
Relative Temp Index, Mech w/o impact	UL 746B	°C	130
Comparative Tracking Index (UL) (PLC)	UL 746A	PLC Code	3

PROPERTY	ASTM TEST METHOD	UNITS	VALUE
PHYSICAL			
Density	ASTM D792	g/cm ³	1.217
Water Absorption, 24 hours	ASTM D 570	%	0.15
Water Absorption, equilibrium, 23C	ASTM D 570	%	0.35
Water Absorption, equilibrium, 100°C	ASTM D 570	%	0.58
OPTICAL			
Light Transmission, 2.54 mm	ASTM D1003	%	85
ELECTRICAL			
Volume Resistivity	ASTM D 257	Ohm-cm	>1.E+17
Dielectric Strength, in air, 3.2 mm	ASTM D 149	kV/mm	16.7
Relative Permittivity, 50/60 Hz	ASTM D 150	-	3.01
Relative Permittivity, 1 MHz	ASTM D 150	-	2.96
Dissipation Factor, 50/60 Hz	ASTM D 150	-	0.0009
Dissipation Factor, 1 MHz	ASTM D 150	-	0.01
Arc Resistance, Tungsten {PLC}	ASTM D 495	PLC Code	7
FLAME CHARACTERISTICS			
UL Recognized, 94V-2 Flame Class Rating (3)	UL 94	MM	1.47

Source GMD, last updated:2000/01/04

- ◆ These property values have been derived from LEXAN™ resin data for the material used to produce this sheet product. Variations within normal tolerances are possible for various colors. These typical values are not intended for specification purposes. If minimum certifiable properties are required please contact your local SABIC, Specialty Film & Sheet representative. All values are measured at least after 48 hours storage at 23°C/50% relative humidity. All properties are measured on injection molded samples. All samples are prepared according ASTM standards. ™ Trademark of SABIC.

CONTACT US:

Middle East and Africa

SABIC Global Headquarters
PO Box 5101
Riyadh 11422
Saudi Arabia
T +966 (0) 1 225 8000
F +966 (0) 1 225 9000
E info@sabic.com

Email

sfs.info@sabic-ip.com

Americas

Specialty Film & Sheet
1 Plastics Avenue
Pittsfield, MA 01201
USA
Toll-free 1 800 323 3783
T 1 413 448 6655
F (888) 443 2033
E Spinside.sales@sabic-ip.com

Europe

Specialty Film & Sheet
Plasticslaan 1
4612 PX
Bergen op Zoom
The Netherlands
T +31 (0)164 293678
F +31 (0)164 293272
E sfs.info@sabic-ip.com

Asia Pacific

Specialty Film & Sheet
2550 Xiupu Road
Pudong
201319 Shanghai
China
T +86 21 2037 8188
F +86 21 2037 8288
E sfs.info@sabic-ip.com

DISCLAIMER: THE MATERIALS, PRODUCTS AND SERVICES OF SAUDI BASIC INDUSTRIES CORPORATION (SABIC) OR ITS SUBSIDIARIES OR AFFILIATES ("SELLER") ARE SOLD SUBJECT TO SELLER'S STANDARD CONDITIONS OF SALE, WHICH ARE AVAILABLE UPON REQUEST. INFORMATION AND RECOMMENDATIONS CONTAINED IN THIS DOCUMENT ARE GIVEN IN GOOD FAITH. HOWEVER, SELLER MAKES NO EXPRESS OR IMPLIED REPRESENTATION, WARRANTY OR GUARANTEE (i) THAT ANY RESULTS DESCRIBED IN THIS DOCUMENT WILL BE OBTAINED UNDER END-USE CONDITIONS, OR (ii) AS TO THE EFFECTIVENESS OR SAFETY OF ANY DESIGN OR APPLICATION INCORPORATING SELLER'S MATERIALS, PRODUCTS, SERVICES OR RECOMMENDATIONS. UNLESS OTHERWISE PROVIDED IN SELLER'S STANDARD CONDITIONS OF SALE, SELLER SHALL NOT BE RESPONSIBLE FOR ANY LOSS RESULTING FROM ANY USE OF ITS MATERIALS, PRODUCTS, SERVICES OR RECOMMENDATIONS DESCRIBED IN THIS DOCUMENT. Each user is responsible for making its own determination as to the suitability of Seller's materials, products, services or recommendations for the user's particular use through appropriate end-use and other testing and analysis. Nothing in any document or oral statement shall be deemed to alter or waive any provision of Seller's Standard Conditions of Sale or this Disclaimer, unless it is specifically agreed to in a writing signed by Seller. Statements by Seller concerning a possible use of any material, product, service or design do not, are not intended to, and should not be construed to grant any license under any patent or other intellectual property right of Seller or as a recommendation for the use of any material, product, service or design in a manner that infringes any patent or other intellectual property right.

SABIC and brands marked with ™ are trademarks of SABIC or its subsidiaries or affiliates.
© 2014 Saudi Basic Industries Corporation (SABIC). All Rights Reserved.

* Any brands, products or services of other companies referenced in this document are the trademarks, service marks and/or trade names of their respective holders.

www.sabic.com/sfs

