

ULTEM™ 1000 - 1000 FILM

PRODUCT DATASHEET

DESCRIPTION

ULTEM™ 1000 - 1000 Film is a high performance thermoplastic Polyetherimide material. The combination of high temperature resistance, flame resistance, low moisture absorption and excellent dielectric properties makes ULTEM film a good candidate for a broad range of electrical and electronic applications. ULTEM film products are thermo-formable and can be heat-sealed to a wide variety of materials.

TYPICAL PROPERTY VALUES

PROPERTY	TEST METHOD	UNITS	VALUE
PHYSICAL			
Specific Gravity	DIN 53479		1.27
Water Absorption, 24 hours	ASTM D570	%	0.25
Pencil Hardness	ASTM D3363		B
MECHANICAL			
Tensile Strength at yield	ASTM D882	N/mm ²	110
at break		N/mm ²	115
Elongation at break	ASTM D882	%	50
Tensile Modulus	ASTM D882	N/mm ²	2500
Tear Strength			
Initiation	ASTM D1004	kN/m	365
Propagation	ASTM D1922	kN/m	8
Coefficient of static friction	ASTM D1894	-	0.72
Coefficient of kinetic friction	ASTM 1894	-	0.65
Poisson's ratio	ASTM D132-61	-	0.42
THERMAL			
Tensile Heat Distortion, 0.35 N/mm ²	ASTM D1637	°C	210
DTUL, 1.8 N/mm ²	ASTM D648	°C	200
Vicat Softening Temperature, B	ASTM D1525	°C	215
Coefficient of Thermal Expansion	ASTM D696	m/m.°C	5.0x10-5
Thermal Conductivity	ASTM C177	W/m.°C	0.22
Strain Relief, 135°C	ASTM D1204	%	0.14/200oC

PROPERTY	TEST METHOD	UNITS	VALUE
ELECTRICAL			
Dielectric Strength, 23°C	ASTM D149	kV/mm	254/25μ
in oil, short term, Relative ermittivity	ASTM D150		
at 50 KHz			2.9
at 1 KHz			3.15
at 1 MHz			2.9
Dissipation factor	ASTM D150		
at 60 Hz			0.0005
at 1 KHz			0.0023
at 1 MHz			0.006
Volume resistivity	ASTM D257	Ohm.m	5.3x10 ¹⁵
Surface resistivity	ASTM D257	Ohm.m	1.6x10 ¹⁶
Arc Resistance, Tungsten	ASTM D495	s	54

FLAMMABILITY			
Oxygen index	ASTM D2683	%	47
UL Flammability	UL94		VTM-0, 0.0125 mm
FMVSS 302	ASTM D618		pass
NFPF 258-NBS	ASTM E662	D(4)	0
Smoke Chamber Test (0.25 mm)		D(max)	0

◆ These are typical properties and are not intended for specification purposes. If minimum certifiable properties are required, please contact your local SABIC representative or the Quality Services Department.
 ™ Trademark of SABIC.

Distributed by:



www.polymerfilms.com

Film East: Tyngsboro, MA | 978-226-0021
Film Central: Naperville, IL | 630-428-4350
Film West: Fresno, CA | 559-383-3456
Film Canada: Brampton, ON | 905-789-3100
Film Mexico: Apodaca, Nuevo León | 52-81-8369-4688

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.



LEXAN is a trademark of SABIC