

## Product Data Sheet

### SUMITOMO PMMA

#### EX

#### Polymethyl Methacrylate, Extrusion

Applications	General purpose extrusion for sheets for signage, display, sound barrier, and LED light guide panels, as well as for profiles pipes and rods.
Characteristics	Excellent extrusion processability, high clarity, excellent weather resistance.
Typical Processing Conditions	Extrusion : L/D 30 - 35, barrel 200°C - 245°C, die 235°C - 245°C Annealing temperature : 75°C - 85°C, 4 hours

#### Typical Properties

Physical	Value	Unit	Method
Melt Flow Rate	230°C, 3.8kg	1.5	g/10min
Specific Gravity	1.19	-	ISO 1183
Water Absorbtion	0.3	%	ISO 62
Optical	Value	Unit	Method
Refractive Index	1.49	-	ISO 489
Total Light Transmittance	92	%	ISO 13468-1
Haze	< 0.5	%	ISO 14782
Mechanical	Value	Unit	Method
Tensile Strength	at Break	74	MPa
Tensile Elongation	at Break	5	%
Flexural Strength		120	MPa
Flexural Modulus		3100	MPa
Impact Strength, Charpy	notched	1.4	kJ/m <sup>2</sup>
Thermal	Value	Unit	Method
Coefficient Of Linear Expansion	$7 \times 10^{-5}$	1/°C	ISO 11359-2
Vicat Softening Temperature	104	°C	ISO 306
Heat Deflection Temperature	1.82 Mpa, annealed	94	°C
Electrical Property	Value	Unit	Method
Surface Resistivity	$> 10^{16}$	Ω	IEC 60093
Volume Resistivity	$> 10^{15}$	Ω cm	IEC 60093
Insulation Resistance	$> 10^{15}$	Ω	IEC 60167
Dielectric Strength	20	kV/mm	IEC 60243-1
Dielectric Constant	1MHz	3.1	-
Other	Value	Unit	Method
Mold Shrinkage	0.2 - 0.6	%	ISO 294-4
Hardness	Rockwell M	100	-
UL Flammability		HB	-
			UL94

**Manufacturer**

EX is manufactured in Saudi Arabia by Rabigh Refining & Petrochemical Co. (Petro Rabigh).  
Petro Rabigh is an ISO 9001, ISO 14001, and ISO 45001 certified company.

**Regulatory Compliances**

Unmodified EX complies with most of the common regulators in the industry for its intended applications.  
Please contact your nearest SCA representative for more information.

**Restriction of Hazardous Substances**

The substances regulated under EU Directive 2011/65/EC, and its amendments, on RoHS in electrical and electronic equipment are not used in the manufacturing process, and are therefore not expected to be present in the product.

**Storage and Handling**

EX is supplied in 25kg bags, 750kg jumbo bags, or bulk containers. It is advisable to store in a well-ventilated storage facility, protected from rain, direct exposure to sunlight, temperature, and dust.

Moisture may accumulate inside the packaging if there is a significant fluctuation in ambient temperature and high relative humidity. If this occurs, customer is strongly advised to dry the resin prior to use. Direct exposure to sunlight and excessive ambient temperature may affect the properties, appearance, and odour characteristic of the resin.

It is recommended to process EX within 6 months upon receipt.

Please refer to the Safety Data Sheet (SDS) for information regarding industrial health and safety issues.

**Disposal and the Environment**

SCA prioritises environmental management in all our operations in responsibility and respect towards the community and the environment.

Disposal of EX should at all times comply with the local and regional environmental protection and waste disposal regulations.

**Office Locations****SUMITOMO CHEMICAL ASIA PTE LTD**

3 Fraser Street, #07-28 DUO Tower, SINGAPORE 189352  
Phone +65 6303 5188      Fax +65 6298 9621      Web Site [www.sumitomo-chem.com.sg](http://www.sumitomo-chem.com.sg)

**SUMIKA PLASTICS AND CHEMICALS TRADING (SHANGHAI) CO., LTD.**

1607, Ascendas Plaza, 333 Tian Yao Qiao Road, Xu Hui District, Shanghai, CHINA 200030  
Phone +86 21 6448 2255      Fax +86 21 6407 7365

**SUMIKA PLASTICS AND CHEMICALS TRADING (SHANGHAI) CO., LTD., GUANGZHOU BRANCH**

Room 6404, Office Building, CITIC Plaza, No.233, North Tianhe Road, Guangzhou City, CHINA 510613  
Phone +86 20 3877 3577      Fax +86 20 3877 3511

**SUMITOMO CHEMICAL EUROPE S.A./N.V.**

Woluwelaan, 57, B-1830 Machelen, BELGIUM  
Phone +32 2 251 0650      Fax +32 2 251 2991      Web Site [sumitomochemicaleurope.eu](http://sumitomochemicaleurope.eu)

**SUMITOMO CHEMICAL EUROPE N.V.**

Turkey Liaison Office, Barbaros Mah. Cigdem Sok. No:1, Agaoglu My Office K:10, D:44-45, 34746 Bati Atasehir, Istanbul, TURKEY  
Phone +90 216 680 3334      Fax +90 216 680 1012

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