

PMMA UV RESISTANT

		CONDITIONS	TEST METHOD	UNITS	
1 - GENERAL PROPERTIES					
Density			ISO 1183	g/cm ³	1,18
Water Absorption		23°C/50%HR	ISO 62	%	0,3
Mold Shrinkage			ASTM D-955	%	0,2-0,6
Melt Flow Index		230°C/3,8 kg	ISO 1133	g/10 mm	2
2 - MECHANICAL PROPERTIES					
Tensile Strength			ISO 527-2	Mpa	70
Tensile Elongation at Break			ISO 527-2	%	6
Flexural Strength			ISO 178	Mpa	103
Flexural Modulus			ISO 178	Mpa	3300
Rockwell Hardness			ASTM D-785		M-96
Impact Resistance (Charpy, Unnotched)			ISO 179-2D	KJ/m ²	11
Impact Resistance (Charpy, Notched)			ISO 179-2C	KJ/m ²	2
Impact Resistance (Izod, Notched)			ISO 180/1A	KJ/m ²	1,8
3 - THERMAL PROPERTIES					
Vicat Softening Temperature		50 N	ISO 306	°C	101
Coefficient of linear expansion			ASTM D-696	10 ⁻⁶ K	65
HDT UFL		1,82 Mpa	ISO 75-2	°C	92
4 - OPTICAL PROPERTIES					
Refractive Index B			ISO R-489		1,49
Light Transmittance			ASTM D-1003	%	92
Haze			ASTM D-1003	%	0,5
7 - FLAMMABILITY					
Fire Resistance			ASTM UL/94		HB
6 - PROCESSING RECOMMENDATIONS					
Melt Temperature				°C	230-245
Drying Conditions	Time			h	4
	Temperature			°C	85

N.B.: The values quoted are the average of results obtained under laboratory conditions and are given only as an indication to enable customers to make best use of semi-finished products

PMMA – UV RESISTANT HIGH IMPACT

		CONDITIONS	TEST METHOD	UNITS	
1 - GENERAL PROPERTIES					
Density			ISO 1183	g/cm ³	1,15
Water Absorption		23°C/50%HR	ISO 62	%	0,36
Mold Shrinkage			ASTM D-955	%	0,2-0,8
2 - RHEOLOGICAL PROPERTIES					
Rheology					
Melt flow Index		230°C/3,8 Kg	ISO 1133	G/10 min	0,8
Process					
Melt Temperature	mini			°C	235
	maxi				245
Mold Temperature	mini			°C	80
	maxi				90
Drying conditions	time			h	4
	temperature			°C	85
3 - MECHANICAL PROPERTIES					
Rockwell Hardness			ASTM D-785		M-46
Tensile Strength		23°C	ISO 527-2	Mpa	38
Tensile Elongation at Break		23°C	ISO 527-2	%	40
Flexural Strength		23°C	ISO 178	Mpa	62
Flexural Modulus		23°C	ISO 178	Mpa	1700
Compressive Strenght		23°C	ISO 604	Mpa	45
Impact Resistance (Charpy, Unnotched)		23°C	ISO 179-2D	KJ/m ²	60
Impact Resistance (Charpy, Notched)		23°C	ISO 179-2C	KJ/m ²	7
Impact Resistance (Izod, Notched)		23°C	ISO 180/1A	KJ/m ²	6,3
4 - THERMAL PROPERTIES					
Vicat Softening Temperature		50 N	ISO 306	°C	100
Coefficient of linear expansion		[-30°C, 23°C]	ASTM D-696	10 ⁻⁶ K	100
HDT		1,82 Mpa	ISO 75-2	°C	88
		0,45 Mpa			93
Specific Heat				J/(Kg.°C)	2093
5 - OPTICAL PROPERTIES					
Refractive Index B			ISO R-489		1,49
Light Transmittance			ASTM D-1003	%	90
Haze			ASTM D-1003	%	2
6 - ELECTRICAL PROPERTIES					
Dielectric Strength			ASTM D-149	MV / m	15
Dielectric Constant		60 Hz	ASTM D-150		3,9
Dissipation Factor		1 MHz	ASTM D-150		0,04
Surface Resistivity			ASTM D-257	Ohm	>10 ¹⁴
Volume Resistivity			ASTM D-257	Ohm.cn	>10 ¹⁵
7 - FLAMMABILITY					
Fire Resistance			ASTM UL/94	Class	HB

N.B.: The values quoted are the average of results obtained under laboratory conditions and are given only as an indication to enable customers to make best use of semi-finished products

PMMA SATIN - UV RESISTANT

		CONDITIONS	TEST METHOD	UNITS	
1 - GENERAL PROPERTIES					
Density			ISO 1183	g/cm ³	1,18
Water Absorption		23°C/50%HR	ISO 62	%	0,3
Mold Shrinkage			ASTM D-955	%	0,2-0,6
2 - RHEOLOGICAL PROPERTIES					
Rheology					
Melt flow Index		230°C/3,8 Kg	ISO 1133	G/10 min	0,8
Process					
Melt Temperature	mini			°C	220
	maxi				240
Mold Temperature	mini			°C	70 - 80
Drying conditions	time			h	2
	temperature			°C	75 - 80
3 - MECHANICAL PROPERTIES					
Tensile Strength			ISO 527-2	Mpa	65
Tensile Elongation at Break			ISO 527-2	%	5
Flexural Strength			ISO 178	Mpa	104
Flexural Modulus			ISO 178	Mpa	3300
Rockwell Hardness			ASTM D-785		
Impact Resistance (Charpy, Unnotched)			ISO 179-2D	KJ/m ²	10
Impact Resistance (Charpy, Notched)			ISO 179-2C	KJ/m ²	2
Impact Resistance (Izod, Notched)			ISO 180/1A	KJ/m ²	1,8
4 - THERMAL PROPERTIES					
Vicat Softening Temperature		50 N	ISO 306	°C	103
Coefficient of linear expansion			ASTM D-696	10 ⁻⁶ K	65
HDT UFL		1,82 Mpa	ISO 75-2	°C	95
5 - OPTICAL PROPERTIES					
Refractive Index B			ISO R-489		1,49
Light Transmittance			ASTM D-1003	%	87
Haze			ASTM D-1003	%	100
6 - FLAMMABILITY					
Fire Resistance			ASTM UL/94		HB

N.B.: The values quoted are the average of results obtained under laboratory conditions and are given only as an indication to enable customers to make best use of semi-finished products

DISCLAIMER

The above information and data sheet have been provided by the manufacturer. PROFIL-TECH does not take any responsibility for the accuracy of the statements made by the manufacturer

PROFIL-TECH accepts only responsibility for the quality of it's products in accordance with it's own standard terms and conditions.