Product Information

ACRYLITE® Solar IM20

Product Profile:

ACRYLITE® Solar IM20 is an amorphous thermoplastic molding compound (PMMA). Typical properties of ACRYLITE® molding compounds are:
• Good flow
• High mechanical strength, surface hardness and abrasion resistance
• High light transmission
• Very good weather resistance
• Easy to process
• High heat resistance

Special properties of ACRYLITE® Solar IM20 are:
• Adjusted transmission characteristics for photo voltaic applications (PV, CPV)
• Increase of power yield and module efficiency
• Prolonging lifetime of cells, lenses or covers.

Application:

Field of use is injection molding of optical and technical parts as well as extrusion of profiles and sheets.

Examples:

Covers for build-in photo voltaic, radial and linear Fresnel lenses for CPV/CSP applications.

Processing:

ACRYLITE® Solar IM20 can be processed on injection molding and extrusion machines with 3-zone general purpose screws for engineering thermoplastics.

Packaging:

ACRYLITE® molding compounds are supplied as pellets of uniform size, packaged in 1500 pound gaylords; other packaging on request.

Properties:

	Parameter	Unit	Standard	ACRYLITE® Solar IM20
Mechanical Properties				
Tensile Modulus	1 mm/min	MPa	ISO 527	3300
Stress @ Break	5 mm/min	MPa	ISO 527	77
Strain @ Break	5 mm/min	%	ISO 527	5.5
Charpy Impact Strength	23°C	kJ/m²	ISO 179/1eU	20
Thermal Properties				
Vicat Softening Temperature	B / 50	°C	ISO 306	108
Glass Transition Temperature		°C	ISO 11357	117
Deflection Temperature Under Load	0.45 MPa	°C	ISO 75	103
Deflection Temperature Under Load	1.8 MPa	°C	ISO 75	98
Coeff. of Linear Therm. Expansion	0 - 50°C	E-5 /°K	ISO 11359	8
Classes of construction product			DIN EN 13501-1	E
Rheological Properties				
Melt Volume Rate, MVR	230°C / 3.8kg	cm³/10min	ISO 1133	3
Optical Properties	d=3 mm			
Luminous transmittance	D65	%	ISO 13468-2	92
Haze		%	ASTM D1003	< 0.5
Refractive Index			ISO 489	1.49
Other Properties				
Density		g/cm³	ISO 1183	1.19

All listed technical data are typical values intended for your guidance. They are given without obligation and do not constitute a materials specification.

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