

## 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.

### Physical Form / 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
<b>Mechanical Properties</b>				
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
<b>Thermal Properties</b>				
Vicat Softening Temperature	B / 50	°C	ISO 306	108
Glass Transition Temperature		°C	ISO 11357	117
Temp. of Deflection under Load	0.45 MPa	°C	ISO 75	103
Temp. of Deflection 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
<b>Rheological Properties</b>				
Melt Volume Rate, MVR	230°C / 3,8kg	cm³/10min	ISO 1133	3
<b>Optical Properties</b>				
	d=3 mm			
Luminous transmittance	D65	%	ISO 13468-2	92
Haze		%	ASTM D1003	< 0,5
Refractive Index	589nm/23°C		ISO 489	1,49
<b>Other Properties</b>				
Density		g/cm³	ISO 1183	1.19
<b>Recommended Processing Conditions</b>				
Predrying Temperature		°C		max. 98
Predrying Time in Desiccant-Type Drier		h		2 - 3
Melt Temperature		°C		220 - 260
Mold Temperature (Injection Molding)		°C		60 - 90

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

Certified to ISO 9001:2015, ISO 14001:2015 and IATF 16949:2016.

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