

## Unitika UG-100-20 Engineering Plastic

Category : Polymer , Thermoplastic , Polyarylate

### Material Notes:

Excellent creep resistance, dimensional stability at high temperature Information provided by Unitika Ltd.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Unitika-UG-100-20-Engineering-Plastic.php](http://www.lookpolymers.com/polymer_Unitika-UG-100-20-Engineering-Plastic.php)

Physical Properties	Metric	English	Comments
Density	1.36 g/cc	0.0491 lb/in <sup>3</sup>	ASTM D792
Water Absorption	0.24 % @Thickness 3.17 mm, Time 86400 sec	0.24 % @Thickness 0.125 in, Time 24.0 hour	ASTM D570
Linear Mold Shrinkage, Flow	0.0020 cm/cm @Thickness 3.00 mm	0.0020 in/in @Thickness 0.118 in	
Linear Mold Shrinkage, Transverse	0.0010 - 0.0020 cm/cm @Thickness 3.00 mm	0.0010 - 0.0020 in/in @Thickness 0.118 in	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	122	122	ASTM D785
Tensile Strength at Break	99.0 MPa	14400 psi	ASTM D638
Elongation at Break	4.5 %	4.5 %	ASTM D638
Flexural Strength	157 MPa	22800 psi	ASTM D790
Flexural Modulus	2.50 GPa	363 ksi	ASTM D790
Izod Impact, Notched	0.490 J/cm @Thickness 3.17 mm	0.918 ft-lb/in @Thickness 0.125 in	ASTM D256

Thermal Properties	Metric	English	Comments
CTE, linear	21.0 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$	11.7 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$	ASTM D696
Deflection Temperature at 1.8 MPa (264 psi)	180 $^\circ\text{C}$	356 $^\circ\text{F}$	ASTM D648

Electrical Properties	Metric	English	Comments
Volume Resistivity	4.60e+14 ohm-cm	4.60e+14 ohm-cm	ASTM D257
	3.0	3.0	

Electrical Properties	Metric @Frequency 1.00e+6 Hz	English @Frequency 1.00e+6 Hz	Comments ASTM D149
Dielectric Strength	35.0 kV/mm	889 kV/in	ASTM D149
Dissipation Factor	0.015 @Frequency 1.00e+6 Hz	0.015 @Frequency 1.00e+6 Hz	ASTM D150
Arc Resistance	120 sec	120 sec	ASTM D495

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	310 - 330 °C	590 - 626 °F	
Middle Barrel Temperature	340 - 360 °C	644 - 680 °F	
Front Barrel Temperature	350 - 370 °C	662 - 698 °F	
Nozzle Temperature	350 - 370 °C	662 - 698 °F	
Mold Temperature	120 - 140 °C	248 - 284 °F	actual surface temp
Drying Temperature	140 °C	284 °F	
Dry Time	6.00 - 24.0 hour	6.00 - 24.0 hour	
Back Pressure	0.490 - 1.47 MPa	71.1 - 213 psi	gage pressure

## Contact Songhan Plastic Technology Co.,Ltd.

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