

Properties

VGR20

Glass fiber-reinforced ABS resin (GF20%, UL94 HB)

Properties	Test methods	Test conditions	Units	
Mold shrinkage	ASTM D955	-	%	0.1-0.4
Tensile strength	ISO 527	-	MPa	90
Flexural strength	ISO 178	-	MPa	130
Flexural modulus	ISO 178	-	MPa	6800
Notched Charpy impact strength	ISO 179/1eA	23 deg C	kJ/m2	10
Notched Charpy impact strength	ISO 179/1eA	-30 deg C	kJ/m2	7
Notched Izod impact strength	ASTM D256	23 deg C/6.4mm	J/m	110
Notched Izod impact strength	ASTM D256	-30 deg C/6.4mm	J/m	40
Rockwell hardness	ISO 2039	-	-	R115
Deflection temperature under load	ISO 75	1.80MPa	deg C	98
Deflection temperature under load	ASTM D648	1.82MPa/12.7mm	deg C	106
Vicat softening temperature	ISO 306/B50	50N X 50deg C/h	deg C	103
Ball pressure temperature	-	-	deg C	95
Coefficient of linear thermal expansion	ISO 11359	MD	X1E-5/deg C	4
Coefficient of linear thermal expansion	ISO 11359	TD	X1E-5/deg C	8
Flammability	UL94	-	-	HB
Water absorption	ISO 62	-	%	0.3
Density	ISO 1183	-	g/cm3	1.19

Note

- Values are typical, not quality assured.
- UL recognition File No. of Daicel Polymer is E47773.

Typical settings for processing

Preliminary drying	Barrel temperature(deg C)				Screw rotation (rpm)	Back pressure (MPa)	Mold temperature (deg C)
	Nozzle	Front	Middle	Back			
3-5hrs 80-85deg C	230-250	230-250	210-230	190-210	40-60	10-20	60-80