

Technical Information



PULSE™ EV81 GF20

Advanced Resin

Overview

PULSE™ EV81 GF20 is an ignition resistant 20% glass filled PC/ABS resin that contains no chlorinated or brominated flame retardant additives. It combines the superior physical properties of PC and the excellent processability of ABS. PULSE™ EV81 GF20 is designed with excellent flow and high rigidity, outstanding capability in chemical resistance, it's suitable for big cylindrical cell bottom tray application. PULSE™ EV81 GF20 has a UL 94 V-0 rating at 1.5 mm.

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.33 g/cm ³	1.33 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (260°C/5.0 kg)	17 g/10 min	17 g/10 min	ASTM D1238
Molding Shrinkage - Flow	1.5E-3 to 3.0E-3 in/in	0.15 to 0.30 %	ASTM D955
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus ¹	754000 psi	5200 MPa	ASTM D638
Tensile Strength ² (Break)	14600 psi	101 MPa	ASTM D638
Tensile Elongation ² (Break)	2.8 %	2.8 %	ASTM D638
Flexural Modulus	899000 psi	6200 MPa	ASTM D790
Flexural Strength	22500 psi	155 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact (73°F (23°C))	2.0 ft-lb/in	110 J/m	ASTM D256
Unnotched Izod Impact (73°F (23°C))	7.2 ft-lb/in	380 J/m	ASTM D4812
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load 264 psi (1.8 MPa), Unannealed	230 °F	110 °C	ASTM D648
Vicat Softening Temperature	234 °F	112 °C	ASTM D1525 ³
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating ⁴			UL 94
0.020 in (0.50 mm)	V-2	V-2	
0.04 in (1.0 mm)	V-1	V-1	
0.06 in (1.5 mm)	V-0	V-0	
0.08 in (2.0 mm)	5VA	5VA	
Injection	Nominal Value (English)	Nominal Value (SI)	
Drying Temperature	212 °F	100 °C	
Drying Time	3.0 to 4.0 hr	3.0 to 4.0 hr	
Processing (Melt) Temp	464 to 554 °F	240 to 290 °C	
Mold Temperature	140 to 212 °F	60 to 100 °C	

Notes

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

¹ 0.039 in/min (1.0 mm/min)

² 0.20 in/min (5.0 mm/min)

³ Rate A (50°C/h), Loading 2 (50 N)

⁴ This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.

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