

DuPont Zytel® FR70G25V0

25% Glass Reinforced, Flame Retardant, Polyamide 66

While this product line has been acquired by Celanese, this specific grade had been discontinued while still a DuPont product so it is listed here as a discontinued DuPont product.

Physical Properties	Metric	English	Comments
Density	1.53 g/cc	0.0553 lb/in ³	DAM; ISO 1183
Melt Density	1.35 g/cc @Temperature >=260 °C	0.0488 lb/in ³ @Temperature >=500 °F	
Water Absorption	3.4 % @Thickness 2.00 mm	3.4 % @Thickness 0.0787 in	DAM; Sim. to ISO 62
Moisture Absorption	0.900 % @Thickness 2.00 mm	0.900 % @Thickness 0.0787 in	DAM; Sim. to ISO 62
Linear Mold Shrinkage, Flow	0.0020 cm/cm	0.0020 in/in	DAM; ISO 294-4, 2577
Linear Mold Shrinkage, Transverse	0.010 cm/cm	0.010 in/in	DAM; ISO 294-4, 2577

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	110 MPa	16000 psi	50% RH; ISO 527-1/-2
	130 MPa	18900 psi	DAM; ISO 527-1/-2
Elongation at Break	2.4 %	2.4 %	DAM; ISO 527-1/-2
	3.4 %	3.4 %	50% RH; ISO 527-1/-2
Tensile Modulus	6.50 GPa	943 ksi	50% RH; ISO 527-1/-2
	9.00 GPa	1310 ksi	DAM; ISO 527-1/-2
Poissons Ratio	0.34	0.34	DAM; ISO 527-1/-2
	0.35	0.35	50%RH; ISO 527-1/-2
Charpy Impact Unnotched	5.00 J/cm ² @Temperature 23.0 °C	23.8 ft-lb/in ² @Temperature 73.4 °F	DAM; ISO 179/1eU
Charpy Impact, Notched	0.950 J/cm ² @Temperature 23.0 °C	4.52 ft-lb/in ² @Temperature 73.4 °F	DAM; ISO 179/1eA
	1.10 J/cm ² @Temperature 23.0 °C	5.23 ft-lb/in ² @Temperature 73.4 °F	50% RH; ISO 179/1eA

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	26.0 µm/m-°C	14.4 µin/in-°F	DAM; ISO 11359-1/-2
CTE, linear, Transverse to Flow	83.0 µm/m-°C	46.1 µin/in-°F	DAM; ISO 11359-1/-2
Specific Heat Capacity	1.91 J/g-°C @Temperature >=260 °C	0.457 BTU/lb-°F @Temperature >=500 °F	Melt
Thermal Conductivity	0.220 W/m-K @Temperature >=260 °C	1.53 BTU-in/hr-ft ² -°F @Temperature >=500 °F	Melt
Melting Point	260 °C	500 °F	10°C/min; DAM; ISO 11357-1/-3
Deflection Temperature at 1.8 MPa (264 psi)	243 °C	469 °F	DAM; ISO 75-1/-2
Vicat Softening Point	235 °C	455 °F	50°C/h, 50N; ISO 306
Flammability, UL94	V-0 @Thickness 0.830 mm	V-0 @Thickness 0.0327 in	DAM; IEC 60695-11-10
	V-0 @Thickness 1.50 mm	V-0 @Thickness 0.0591 in	DAM; IEC 60695-11-10
	5VA @Thickness 1.50 mm	5VA @Thickness 0.0591 in	DAM; IEC 60695-11-20
Flame Spread	<= 80.0 mm/min @Thickness 1.00 mm	<= 3.15 in/min @Thickness 0.0394 in	ISO 3795 (FMVSS 302)