

Zytel® FG70G30HSR2 BK309

NYLON RESIN

DuPont Performance Polymers

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Technical Data

Product Description

30% Glass Reinforced, Heat Stabilized, Polyamide 66 Developed for Food Contact Applications

General

Material Status	• Commercial: Active
Literature ¹	• Processing - Injection Molding (English) • Processing - Injection Molding of Glass-reinforced Zytel (English) • Typical Processing for DuPont Engineering Polymers (English)
Search for UL Yellow Card	• DuPont Performance Polymers • Zytel®
Availability	• Africa & Middle East • Asia Pacific • Europe • Latin America • North America
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight
Additive	• Heat Stabilizer • Mold Release
Features	• Food Contact Acceptable • Heat Stabilized • Hydrolysis Resistant
RoHS Compliance	• Contact Manufacturer
Forms	• Pellets
Processing Method	• Injection Molding
Multi-Point Data	• Shear Modulus vs. Temperature, Dynamic (ISO 11403-1) • Shear Stress vs. Shear Rate (ISO 11403-1) • Specific Volume vs Temperature (ISO 11403-2) • Viscosity vs. Shear Rate (ISO 11403-2)
Part Marking Code (ISO 11469)	• >PA66-GF30<
Resin ID (ISO 1043)	• PA66-GF30

Physical	Dry	Conditioned	Unit	Test Method
Density	1.37	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	1.0	--	%	
Flow	0.20	--	%	
Viscosity Number	158	--	cm ³ /g	ISO 307
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	10000	7000	MPa	ISO 527-2
Tensile Stress (Break)	200	130	MPa	ISO 527-2
Tensile Strain (Break)	3.3	5.0	%	ISO 527-2
Poisson's Ratio	0.34	0.35		
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength (23°C)	12	15	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	70	80	kJ/m ²	ISO 179/1eU
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, Unannealed	260	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	250	--	°C	ISO 75-2/A
Glass Transition Temperature ³	75.0	20.0	°C	ISO 11357-2
Vicat Softening Temperature	209	--	°C	ISO 306/B50
Melting Temperature ³	263	--	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow	2.8E-5	--	cm/cm/°C	
Transverse	9.5E-5	--	cm/cm/°C	
Effective Thermal Diffusivity	6.85E-8	--	m ² /s	
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	--	1.0E+13	ohms	IEC 62631-3-2



Flammability	Dry	Conditioned	Unit	Test Method
Burning Rate ⁴ (1.00 mm)	< 80	--	mm/min	ISO 3795
Oxygen Index	24	--	%	ISO 4589-2
FMVSS Flammability	B	--		FMVSS 302
Fill Analysis	Dry	Conditioned	Unit	
Melt Density	1.20	--	g/cm ³	
Ejection Temperature	210	--	°C	
Specific Heat Capacity of Melt	2220	--	J/kg/°C	
Thermal Conductivity of Melt	0.22	--	W/m/K	
Additional Information	Dry	Conditioned	Unit	
ISO Designation	ISO 16396- PA66,GF30,M1CGHRW,S1 4-100	--		

Injection	Dry Unit
Drying Temperature	80 °C
Drying Time - Desiccant Dryer	2.0 to 4.0 hr
Suggested Max Moisture	0.20 %
Processing (Melt) Temp	285 to 305 °C
Melt Temperature, Optimum	295 °C
Mold Temperature	50 to 120 °C
Mold Temperature, Optimum	100 °C
Holding Pressure	50.0 to 100 MPa
Drying Recommended	yes
Hold Pressure Time	3.00 s/mm
Maximum Screw Tangential Speed	12 m/min

Notes

¹ These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

² Typical properties: these are not to be construed as specifications.

³ 10°C/min

⁴ FMVSS 302



Where to Buy

Supplier

DuPont Performance Polymers

Wilmington, DE USA
Telephone: 302-999-4592
Web: <http://plastics.dupont.com/>

Distributor

CCC Plastics

Telephone: 800-465-6917
Web: <https://www.ccc-group.com/>
Availability: Canada

Distrupol Ltd

Distrupol Ltd is a Pan European distribution company. Contact Distrupol Ltd for availability of individual products by country.
Telephone: 08452003040
Web: <http://www.distrupol.com/>
Availability: Denmark, Finland, Ireland, Norway, Sweden, United Kingdom

PolyOne Distribution

PolyOne Distribution is a global distribution company. Contact PolyOne Distribution for availability of individual products by country.
Telephone: 800-894-4266
Web: <http://polyonedistribution.com/>
Availability: Global

