



Hostaform® C 27021 GV3/30

Celanese Corporation - Acetal (POM) Copolymer

Saturday, November 2, 2019

General Information

Product Description

Chemical abbreviation according to ISO 1043-1: POM Molding compound ISO 9988- POM-K, M-GNR, 05-002, GB30 POM copolymer With 30 % glass spheres reinforced, very easy flowing injection molding type; low-warpage; high resistance to thermal and oxidative degradation. Burning rate ISO 3795 and FMVSS 302 < 100 mm/min for a thickness more than 1 mm. Ranges of applications: low-warpage and dimensionally stable molded parts with higher rigidity and hardness. FMVSS = Federal Motor Vehicle Safety Standard (USA)

General

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Europe • North America • Asia Pacific • Latin America
Filler / Reinforcement	• Glass Bead, 30% Filler by Weight
Features	• Good Dimensional Stability • High Hardness • Low Warpage • Good Flow • High Stiffness
RoHS Compliance	• Contact Manufacturer
Processing Method	• Injection Molding
Resin ID (ISO 1043)	• POM

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.59	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)	16	cm ³ /10min	ISO 1133
Water Absorption (Saturation, 73°F)	0.90	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.12	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	551000	psi	ISO 527-2/1A
Tensile Stress (Yield)	5510	psi	ISO 527-2/1A/50
Tensile Strain (Yield)	6.0	%	ISO 527-2/1A/50
Nominal Tensile Strain at Break	12	%	ISO 527-2/1A/50
Tensile Creep Modulus (1 hr)	479000	psi	ISO 899-1
Tensile Creep Modulus (1000 hr)	305000	psi	ISO 899-1
Flexural Modulus (73°F)	508000	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	1.4	ft-lb/in ²	
73°F	1.2	ft-lb/in ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	14	ft-lb/in ²	
73°F	14	ft-lb/in ²	
Hardness	Nominal Value	Unit	Test Method
Ball Indentation Hardness ²	24200	psi	ISO 2039-1
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (264 psi, Unannealed)	234	°F	ISO 75-2/A
Vicat Softening Temperature	304	°F	ISO 306/B50
Melting Temperature ³	331	°F	ISO 11357-3

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Thermal	Nominal Value	Unit	Test Method
CLTE - Flow	4.4E-5	in/in/°F	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+14	ohms	IEC 60093
Volume Resistivity	1.0E+14	ohms·cm	IEC 60093
Electric Strength	1000	V/mil	IEC 60243-1
Relative Permittivity			IEC 60250
100 Hz	5.00		
1 MHz	4.50		
Dissipation Factor			IEC 60250
100 Hz	0.030		
1 MHz	8.0E-3		
Comparative Tracking Index	600	V	IEC 60112

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	212 to 248	°F
Drying Time	3.0 to 4.0	hr
Suggested Max Moisture	0.15	%
Hopper Temperature	68 to 86	°F
Rear Temperature	338 to 356	°F
Middle Temperature	356 to 374	°F
Front Temperature	374 to 392	°F
Nozzle Temperature	374 to 410	°F
Processing (Melt) Temp	374 to 410	°F
Mold Temperature	176 to 248	°F
Injection Rate	Slow	
Back Pressure	< 290	psi

Injection Notes

Feeding zone temperature: 60 to 80°C
Zone4 temperature: 190 to 210°C
Hot runner temperature: 190 to 210°C

Notes

¹ Typical properties: these are not to be construed as specifications.

² 30s

³ 10°C/min