



Grilamid® XE 4208 black 9992

EMS-GRIVORY - Polyamide 612

Monday, November 4, 2019

General Information

General				
Material Status	• Commercial: Active			
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America	
Additive	• Plasticizer			
Features	• High Heat Resistance • High Impact Resistance	• High Viscosity • Hydrolysis Resistant	• Plasticized	
Uses	• Automotive Applications • Automotive Electronics • Electrical/Electronic Applications	• Hydraulic Applications • Lighting Applications • Pneumatic Applications	• Profiles • Tubing • Wire & Cable Applications	
Appearance	• Black			
Forms	• Granules			
Processing Method	• Extrusion	• Profile Extrusion		

ASTM & ISO Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.03	--	g/cm ³	ISO 1183
Water Absorption				ISO 62
Saturation, 73°F	2.0	--	%	
Water Absorption				ISO 62
Equilibrium, 73°F, 50% RH	0.80	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	133000	92800	psi	ISO 527-2
Tensile Stress (50% Strain)	5080	4350	psi	ISO 527-2
Tensile Strain (Break)	> 50	> 50	%	ISO 527-2
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-22°F	7.6	7.6	ft-lb/in ²	
73°F	No Break	No Break		
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F	No Break	No Break		
73°F	No Break	No Break		
Hardness	Dry	Conditioned	Unit	Test Method
Ball Indentation Hardness	7980	5800	psi	ISO 2039-1
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				ISO 75-2/B
66 psi, Unannealed	212	--	°F	
Heat Deflection Temperature				ISO 75-2/A
264 psi, Unannealed	122	--	°F	
Continuous Use Temperature				
-- ²	194 to 212	--	°F	ISO 2578
-- ³	266	--	°F	Internal Method
Melting Temperature ⁴	415	--	°F	ISO 11357-3

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Thermal	Dry	Conditioned	Unit	Test Method
CLTE - Flow	1.3E-4	--	in/in/°F	ISO 11359-2
CLTE - Transverse	7.2E-5	--	in/in/°F	ISO 11359-2
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	--	1.0E+10	ohms	IEC 60093
Volume Resistivity	1.0E+10	1.0E+10	ohms·cm	IEC 60093
Electric Strength	940	940	V/mil	IEC 60243-1
Comparative Tracking Index	--	600	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flammability Classification 0.03 in	HB	--		IEC 60695-11-10, -20
Additional Information	Dry	Conditioned	Unit	Test Method
ISO Type	PA612-HIP, E, 22-010	--		ISO 1874

Notes

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

² Long Term

³ Short Term

⁴ 10°C/min