

Grilon® TSG-50 FA

Polyamide 66/6 Copolymer

EMS-GRIVORY

Message:

Grilon® TSG-50 FA is a Polyamide 66/6 Copolymer (Nylon 66/6) material filled with 50% glass fiber. It is available in Africa & Middle East, Asia Pacific, Europe, Latin America, or North America for injection molding.

Important attributes of Grilon® TSG-50 FA are:

- Flame Rated
- RoHS Compliant
- Food Contact Acceptable
- Typical applications include:
 - Food Contact Applications
 - Consumer Goods
 - Household Applications
 - Industrial Applications
 - Medical/Healthcare

General Information				
UL YellowCard		E53898-100242570		
Filler / Reinforcement		Glass Fiber,50% Filler by Weight		
Features		Food Contact Acceptable		
Uses		Consumer Applications		
		Household Goods		
		Industrial Applications		
		Medical Packaging		
		Packaging		
		Sporting Goods		
Agency Ratings		EU Food Contact, Unspecified Rating		
		FDA Food Contact, Unspecified Rating		
RoHS Compliance		RoHS Compliant		
Forms		Granules		
Processing Method		Injection Molding		
Physical	Dry	Conditioned	Unit	Test Method
Density	1.56	--	g/cm³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	0.30	--	%	
Flow	0.10	--	%	
Water Absorption				ISO 62
Saturation, 23°C	6.0	--	%	
Equilibrium, 23°C, 50% RH	1.5	--	%	
Hardness	Dry	Conditioned	Unit	Test Method

Ball Indentation Hardness	270	160	MPa	ISO 2039-1
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	16500	10000	MPa	ISO 527-2
Tensile Stress				ISO 527-2
Yield	--	150	MPa	
Break	240	150	MPa	
Tensile Strain				ISO 527-2
Yield	--	5.0	%	
Break	3.0	--	%	
Nominal Tensile Strain at Break	--	5.0	%	ISO 527-2
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	11	12	kJ/m ²	
23°C	15	20	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	80	90	kJ/m ²	
23°C	90	100	kJ/m ²	
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
1.8 MPa, Unannealed	220	--	°C	ISO 75-2/A
8.0 MPa, Unannealed	165	--	°C	ISO 75-2/C
Continuous Use Temperature				Internal Method
-- ¹	90.0 to 120	--	°C	
-- ²	180	--	°C	
Melting Temperature ³	260	--	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow	1.5E-5	--	cm/cm/°C	
Transverse	1.0E-4	--	cm/cm/°C	
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	--	1.0E+10	ohms	IEC 60093
Volume Resistivity	1.0E+13	1.0E+11	ohms·cm	IEC 60093
Electric Strength	31	31	kV/mm	IEC 60243-1
Comparative Tracking Index	600	600	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flammability Classification (0.800 mm)	HB	--		IEC 60695-11-10, -20
Additional Information	Dry	Conditioned		Test Method
ISO Type	PA 66+PA 6, MHR, 14-160N, GF-50			ISO 1874

NOTE

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| 1. | Long Term |
| 2. | Short Term |
| 3. | 10°C/min |

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