

Grilon® TSZ 1

Polyamide 66/6 Copolymer
EMS-GRIVORY

Message:

Grilon® TSZ 1 is a Polyamide 66/6 Copolymer (Nylon 66/6) material. It is available in Africa & Middle East, Asia Pacific, Europe, Latin America, or North America for injection molding.

Important attributes of Grilon® TSZ 1 are:

- Flame Rated
- RoHS Compliant
- Impact Modified

Typical applications include:

- Automotive
- Electrical/Electronic Applications
- Consumer Goods
- Engineering/Industrial Parts
- Industrial Applications

General Information				
Additive		Impact Modifier		
Features		Impact Modified		
Uses		Automotive Applications		
		Connectors		
		Consumer Applications		
		Electrical/Electronic Applications		
		Engineering Parts		
		Industrial Applications		
		Power/Other Tools		
		Sporting Goods		
RoHS Compliance		RoHS Compliant		
Forms		Granules		
Processing Method		Injection Molding		
Multi-Point Data		Shear Modulus vs. Temperature (ISO 11403-1)		
		Viscosity vs. Shear Rate (ISO 11403-2)		
Physical	Dry	Conditioned	Unit	Test Method
Density	1.12	--	g/cm³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	1.4	--	%	ISO 62
Flow	1.2	--	%	
Water Absorption				
Saturation, 23°C	8.5	--	%	ISO 62
Equilibrium, 23°C, 50% RH	2.5	--	%	

Hardness	Dry	Conditioned	Unit	Test Method
Ball Indentation Hardness	125	45.0	MPa	ISO 2039-1
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	2400	750	MPa	ISO 527-2
Tensile Stress				ISO 527-2
Yield	65.0	35.0	MPa	
Break	40.0	--	MPa	
Tensile Strain (Yield)	4.0	20	%	ISO 527-2
Nominal Tensile Strain at Break	25	> 50	%	ISO 527-2
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	10	8.0	kJ/m ²	
23°C	11	45	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	No Break	No Break		
23°C	No Break	No Break		
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, Unannealed	160	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	55.0	--	°C	ISO 75-2/A
Continuous Use Temperature				Internal Method
-- ¹	100 to 120	--	°C	
-- ²	180	--	°C	
Melting Temperature ³	260	--	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow	1.2E-4	--	cm/cm/°C	
Transverse	1.5E-4	--	cm/cm/°C	
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	--	1.0E+11	ohms	IEC 60093
Volume Resistivity	1.0E+14	1.0E+12	ohms·cm	IEC 60093
Electric Strength	31	27	kV/mm	IEC 60243-1
Comparative Tracking Index	--	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	PA66+PA6-HI, MHR, 14-020N	--		ISO 1874
NOTE				

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

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