

Grilon® BT 40 Z

Polyamide 6
EMS-GRIVORY

Message:

Grilon® BT 40 Z is a Polyamide 6 (Nylon 6) material. It is available in Africa & Middle East, Asia Pacific, Europe, Latin America, or North America for injection molding.

Important attributes of Grilon® BT 40 Z are:

- Flame Rated
- RoHS Compliant
- Impact Modified
- Medium Viscosity

Typical applications include:

- Automotive
- Consumer Goods
- Household Applications
- Industrial Applications
- Sporting Goods

General Information				
UL YellowCard		E53898-243843		
Additive		Impact Modifier		
Features		Impact Modified		
		Medium Viscosity		
Uses		Consumer Applications		
		Household Goods		
		Industrial Applications		
		Power/Other Tools		
		Sporting Goods		
RoHS Compliance		RoHS Compliant		
Forms		Granules		
Processing Method		Injection Molding		
Multi-Point Data		Isothermal Stress vs. Strain (ISO 11403-1)		
		Secant Modulus vs. Strain (ISO 11403-1)		
		Viscosity vs. Shear Rate (ISO 11403-2)		
Physical	Dry	Conditioned	Unit	Test Method
Density	1.06	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	0.90	--	%	
Flow	0.70	--	%	
Water Absorption				ISO 62
Saturation, 23°C	6.0	--	%	

Equilibrium, 23°C, 50% RH	2.5	--	%	
Hardness	Dry	Conditioned	Unit	Test Method
Ball Indentation Hardness	120	80.0	MPa	ISO 2039-1
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	2400	1600	MPa	ISO 527-2
Tensile Stress				ISO 527-2
Yield	70.0	50.0	MPa	
Break	50.0	45.0	MPa	
Tensile Strain (Yield)	6.0	7.0	%	ISO 527-2
Nominal Tensile Strain at Break	15	> 50	%	ISO 527-2
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	10	12	kJ/m ²	
23°C	15	20	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	135	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	105	--	°C	ISO 75-2/A
Continuous Use Temperature				Internal Method
-- ¹	80.0 to 100	--	°C	
-- ²	130	--	°C	
Melting Temperature ³	220	--	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow	7.0E-5	--	cm/cm/°C	
Transverse	1.0E-4	--	cm/cm/°C	
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	--	1.0E+12	ohms	IEC 60093
Volume Resistivity	1.0E+14	1.0E+13	ohms·cm	IEC 60093
Electric Strength	37	34	kV/mm	IEC 60243-1
Comparative Tracking Index	--	550	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	PA6-HI+PA12/X, MH, 18-020 N--			ISO 1874

NOTE

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

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