Gravi-Tech™ GRV-NP-110-W-NAT

Polyamide 12

PolyOne Corporation

Message:

Gravi-Tech™ GRV-NP-110-W-NAT is a Polyamide 12 (Nylon 12) product. It can be processed by injection molding and is available in Africa & Middle East, Asia Pacific, Europe, Latin America, or North America. Applications of Gravi-Tech™ GRV-NP-110-W-NAT include industrial applications, medical/healthcare and sporting goods.
Characteristics include:
Impact Modified
Non-Toxic

General Information			
Additive	Impact Modifier		
Features	High Density Impact Modified Non-Toxic		
Uses	Industrial Applications Medical/Healthcare Applications Projectiles Radiation Shielding Sporting Goods Weighting & Balancing		
Appearance	Natural Color		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	11.0	g/cm³	ASTM D792
Molding Shrinkage - Flow	0.40 to 0.60	%	ASTM D955
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus [1]	8270	MPa	ASTM D638
Tensile Strength [2] (Yield)	27.2	MPa	ASTM D638
Tensile Elongation [3] (Break)	1.8	%	ASTM D638
Flexural Modulus	5520	MPa	ASTM D790
Flexural Strength	48.3	MPa	ASTM D790
Poisson's Ratio	0.35		ASTM E132
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (23°C, 3.18 mm, Injection Molded)	110	J/m	ASTM D256A
Unnotched Izod Impact (23°C, 3.18 mm, Injection Molded)	370	J/m	ASTM D256

Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed, 6.35 mm	138	°C	
1.8 MPa, Unannealed, 6.35 mm	87.8	°C	
CLTE			ASTM E831
Flow : 0 to 32°C	6.3E-5	cm/cm/°C	
Flow : 60 to 100°C	1.0E-4	cm/cm/°C	
Transverse : 0 to 32°C	5.7E-5	cm/cm/°C	
Transverse : 60 to 100°C	8.4E-5	cm/cm/°C	
Thermal Conductivity [4]	3.5	W/m/K	ASTM C177
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity (3.18 mm)	10 to 1.0E+3	ohms	ASTM D257
Volume Resistivity (3.18 mm)	10 to 1.0E+3	ohms·cm	ASTM D257
Injection	**Nominal Value**	**Unit**	
Drying Temperature	79.4	°C	
Drying Time	4.0	hr	
Processing (Melt) Temp	260 to 288	°C	
Mold Temperature	82.2 to 149	°C	
NOTE			
1.	Type I, 5.1 mm/min		
2.	Type I, 5.1 mm/min		
3.	Type I, 5.1 mm/min		
4.	The value listed as thermal conductivity, ASTM C177, was tested in accordance with ASTM E1461.		

Recommended distributors for this material

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