

## TES J-4/35

### Techmer Polymer Modifiers - Polyamide 612

#### General

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Europe • North America • Asia Pacific • Latin America
Filler / Reinforcement	• Glass Fiber, 35% Filler by Weight
Features	• Chemical Resistant • Good Stiffness • High Strength • Good Impact Resistance • High Heat Resistance • Low Moisture Absorption
Uses	• Automotive Under the Hood • Fuel Lines • Knobs • Bearings • Furniture • Pulleys • Bushings • Gears • Sporting Goods • Cams • Handles • Valves/Valve Parts • Electrical Parts • Housings • Wheels/Casters
RoHS Compliance	• RoHS Compliant
Forms	• Pellets
Processing Method	• Injection Molding

#### Properties <sup>1</sup>

	Nominal Value	Unit	Test Method
<b>Physical</b>			
Density / Specific Gravity	1.34		ASTM D792
Molding Shrinkage - Flow	2.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.20	%	ASTM D570
<b>Mechanical</b>			
Tensile Modulus	1.40E+6	psi	ASTM D638
Tensile Strength (Yield)	25000	psi	ASTM D638
Tensile Elongation (Yield)	5.0	%	ASTM D638
Flexural Modulus	1.35E+6	psi	ASTM D790
Flexural Strength (Yield)	36000	psi	ASTM D790
Compressive Strength	23000	psi	ASTM D695
Shear Strength	9500	psi	ASTM D732
<b>Impact</b>			
Notched Izod Impact (73°F, 0.125 in)	2.5	ft-lb/in	ASTM D256
<b>Hardness</b>			
Rockwell Hardness (E-Scale)	40		ASTM D785
<b>Thermal</b>			
Deflection Temperature Under Load (66 psi, Unannealed)	410	°F	ASTM D648
Deflection Temperature Under Load (264 psi, Unannealed)	390	°F	ASTM D648
CLTE - Flow	1.4E-5	in/in/°F	ASTM D696
<b>Electrical</b>			
Surface Resistivity	1.0E+14	ohms	ASTM D257
Volume Resistivity	1.0E+15	ohms·cm	ASTM D257
Dielectric Strength	500	V/mil	ASTM D149
Dielectric Constant			ASTM D150
1 kHz	3.70		
1 MHz	3.40		
Dissipation Factor			ASTM D150
1 kHz	0.024		
1 MHz	0.016		

#### Processing Information

##### Injection

##### Nominal Value Unit



Drying Temperature	165 to 220 °F
Drying Time	2.0 to 16 hr
Rear Temperature	520 to 540 °F
Middle Temperature	530 to 550 °F
Front Temperature	510 to 530 °F
Nozzle Temperature	500 to 520 °F
Processing (Melt) Temp	520 to 540 °F
Mold Temperature	130 to 180 °F

