Sustainable Polymer SOLUTIONS

Properties for ReZen ABS-205 CF BK

Product Name: ReZen ABS-205 CF BK
Status: Preliminary

Description: Electrically Conductive General Purpose ABS
Appearance: Black
Processing Methods: Injection Molding
Applications: General Purpose Applications for Non-Cosmetic Applications

Mechanical Properties	SI	English	Test Method
Tensile Strength @ Yield	28 Mpa	4,000 psi	ASTM D638
Tensile Strength @ Break	54 MPa	7,830 psi	ASTM D638
Tensile Modulus	1,655 MPa	240,000 psi	ASTM D790
Tensile Elongation @ Break	4.40%	4.40%	ASTM D638
Flexural Modulus	1,724 MPa	250,000 psi	ASTM D790
Flexural Strength	34 MPa	5,000 psi	ASTM D790
Notched Izod Impact (73 ºF)	53 J/m	1.0 ft-lb/in	ASTM D256
Physical Properties	**SI**	**English**	**Test Method**
Specific Gravity	1.07 sp gr	1.07 sp gr	ASTM D792
Melt Flow : 220 °C/10 kg	5.0 g/10min	5.0 g/10min	ASTM D 1238
Mold Shrink – Flow: 0.126 in (3.20 mm)	.004-.008 in/in	.004-.008 in/in %	ASTM D955
Mold Shrink – XFlow: 0.126 in (3.20 mm)	0.004 to 0.007 in/in	0.004 to 0.007%	ASTM D955
Filler Content	5%	5%	-
Thermal Properties	**SI**	**English**	**Test Method**
Heat Deflection Temperature, unannealed. 0.125” (3.2mm) 264 psi (1.82 MPa), Load	230 °F	110 °C	ASTM D648

Processing Guidelines	
Drying Temperature	180-200 °F
Drying Time	2.0 to 4.0 hr
Maximum Drying Time	7.0 hr
Suggested Maximum Moisture	0.10%
Rear Barrel Temperatures	370-450 °F
Middle Barrel Temperatures	400-475 °F
Front Barrel Temperatures	425-500 °F
Nozzle Temperature	425-525 °F
Melt (processing) Temperatures	425-525 °F
Mold Temperatures	120-170 °F
Back Pressure	25-100 psi
Screw Speed	25-75 rpm

This mechanical property test data has been developed using injection molded specimens tested under standardized conditions; furthermore, many of the mechanical properties of the thermoplastic materials can be influenced by changes in processing conditions, environmental factors such as temperature and humidity, and rate of application of stress. Therefore, these test results, which characterized typical production material, should not be used either to establish specification limits or alone as the basis for engineering design.

5550 Wild Rose Lane, Suite 400
West Des Moines, IA 50266
515-661-6316