

Overview of materials for Acrylonitrile Butadiene Styrene (ABS), 10% Glass Fiber Filled

Category : Polymer , Thermoplastic , ABS Polymer , Acrylonitrile Butadiene Styrene (ABS), 10% Glass Fiber Filled

Material Notes:

This property data is a summary of similar materials in the MatWeb database for the category "Acrylonitrile Butadiene Styrene (ABS), 10% Glass Fiber Filled". Specific grades with glass content between 5% and 14% are included. Each property range of values reported is minimum and maximum values of appropriate MatWeb entries. The comments report the average value, and number of data points used to calculate the average. The values are not necessarily typical of any specific grade, especially less common values and those that can be most affected by additives or processing methods.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Overview-of-materials-for-Acrylonitrile-Butadiene-Styrene-ABS-10-Glass-Fiber-Filled.php

Physical Properties	Metric	English	Comments
Density	1.07 - 1.40 g/cc	0.0387 - 0.0506 lb/in ³	Average value: 1.14 g/cc Grade Count:60
Filler Content	5.00 - 15.0 %	5.00 - 15.0 %	Average value: 9.79 % Grade Count:14
Water Absorption	0.100 - 0.300 %	0.100 - 0.300 %	Average value: 0.224 % Grade Count:22
Maximum Moisture Content	0.0200 - 0.150	0.0200 - 0.150	Average value: 0.0525 Grade Count:4
Linear Mold Shrinkage	0.00100 - 0.00900 cm/cm	0.00100 - 0.00900 in/in	Average value: 0.00321 cm/cm Grade Count:56
Linear Mold Shrinkage, Transverse	0.00200 - 0.00400 cm/cm	0.00200 - 0.00400 in/in	Average value: 0.00283 cm/cm Grade Count:3
Melt Flow	0.100 - 42.0 g/10 min	0.100 - 42.0 g/10 min	Average value: 7.62 g/10 min Grade Count:26
Ash	9.70 - 10.0 %	9.70 - 10.0 %	Average value: 9.93 % Grade Count:4

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	55.0 - 102	55.0 - 102	Average value: 73.4 Grade Count:5
Hardness, Rockwell R	55.0 - 115	55.0 - 115	Average value: 104 Grade Count:19
Tensile Strength, Ultimate	26.0 - 98.1 MPa	3770 - 14200 psi	Average value: 58.0 MPa Grade Count:34
	28.0 - 46.0 MPa @Temperature 60.0 - 90.0 °C	4060 - 6670 psi @Temperature 140 - 194 °F	Average value: 37.0 MPa Grade Count:1
Tensile Strength, Yield	28.0 - 88.3 MPa	4060 - 12800 psi	Average value: 59.4 MPa Grade Count:38

Elongation at Break Mechanical Properties	2.00 - 10.0 % Metric	2.00 - 10.0 % English	Average value: 3.85 % Grade Count:43 Comments
Elongation at Yield	1.90 - 6.00 %	1.90 - 6.00 %	Average value: 3.11 % Grade Count:8
Modulus of Elasticity	2.50 - 5.88 GPa	363 - 853 ksi	Average value: 3.66 GPa Grade Count:21
Flexural Yield Strength	62.1 - 108 MPa	9010 - 15700 psi	Average value: 87.3 MPa Grade Count:52
Flexural Modulus	2.34 - 5.88 GPa	340 - 853 ksi	Average value: 3.72 GPa Grade Count:59
Izod Impact, Notched	0.490 - 1.80 J/cm	0.919 - 3.37 ft-lb/in	Average value: 0.764 J/cm Grade Count:58
	0.450 - 1.50 J/cm @Temperature -40.0 - 0.000 °C	0.843 - 2.81 ft-lb/in @Temperature -40.0 - 32.0 °F	Average value: 0.579 J/cm Grade Count:2
	0.300 - 0.500 J/cm @Temperature -30.0 - 0.000 °C	0.562 - 0.937 ft-lb/in @Temperature -22.0 - 32.0 °F	Average value: 0.579 J/cm Grade Count:1
	0.300 - 0.500 J/cm @Thickness 3.20 - 3.20 mm	0.562 - 0.937 ft-lb/in @Thickness 0.126 - 0.126 in	Average value: 0.579 J/cm Grade Count:1
Izod Impact, Unnotched	2.14 - 3.47 J/cm	4.00 - 6.50 ft-lb/in	Average value: 2.97 J/cm Grade Count:18

Thermal Properties	Metric	English	Comments
CTE, linear	23.0 - 57.6 µm/m-°C	12.8 - 32.0 µin/in-°F	Average value: 43.9 µm/m-°C Grade Count:12
Deflection Temperature at 0.46 MPa (66 psi)	93.3 - 112 °C	200 - 233 °F	Average value: 102 °C Grade Count:29
Deflection Temperature at 1.8 MPa (264 psi)	83.9 - 114 °C	183 - 237 °F	Average value: 97.0 °C Grade Count:49
Vicat Softening Point	96.0 - 111 °C	205 - 232 °F	Average value: 104 °C Grade Count:10
UL RTI, Electrical	50.0 - 60.0 °C	122 - 140 °F	Average value: 56.0 °C Grade Count:3
UL RTI, Mechanical with Impact	50.0 - 60.0 °C	122 - 140 °F	Average value: 56.0 °C Grade Count:3
UL RTI, Mechanical without Impact	50.0 - 60.0 °C	122 - 140 °F	Average value: 56.0 °C Grade Count:3
Flammability, UL94	HB - 5VB	HB - 5VB	Grade Count:33

Electrical Properties	Metric	English	Comments
Electrical Resistivity	1.00e+9 - 1.00e+16 ohm-cm	1.00e+9 - 1.00e+16 ohm-cm	Average value: 5.32e+15 ohm-cm Grade Count:16

Electrical Properties	Metric	English	Comments
Surface Resistance	10 - 1.00e+14 ohm	10 - 1.00e+14 ohm	Average value: 5.00e+13 ohm Grade Count:4
Dielectric Constant	3.00 - 3.30	3.00 - 3.30	Average value: 3.17 Grade Count:3
Dielectric Strength	15.7 - 30.0 kV/mm	400 - 762 kV/in	Average value: 20.1 kV/mm Grade Count:13
Dissipation Factor	0.00800 - 0.0200	0.00800 - 0.0200	Average value: 0.0127 Grade Count:3
Arc Resistance	60.0 - 180 sec	60.0 - 180 sec	Average value: 107 sec Grade Count:3
Comparative Tracking Index	175 - 500 V	175 - 500 V	Average value: 308 V Grade Count:3

Processing Properties	Metric	English	Comments
Processing Temperature	193 - 232 °C	380 - 450 °F	Average value: 214 °C Grade Count:4
Nozzle Temperature	177 - 274 °C	350 - 525 °F	Average value: 230 °C Grade Count:6
Melt Temperature	168 - 274 °C	335 - 525 °F	Average value: 221 °C Grade Count:17
Mold Temperature	40.0 - 93.3 °C	104 - 200 °F	Average value: 67.8 °C Grade Count:21
Drying Temperature	70.0 - 100 °C	158 - 212 °F	Average value: 85.4 °C Grade Count:15
Moisture Content	0.100 %	0.100 %	Average value: 0.100 % Grade Count:5
Dew Point	-17.8 °C	0.000 °F	Average value: -17.8 °C Grade Count:4
Injection Pressure	4.83 - 150 MPa	700 - 21800 psi	Average value: 76.2 MPa Grade Count:12

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China