

Overview of materials for Acrylonitrile Butadiene Styrene (ABS), 20% Carbon Fiber Filled

Category : Polymer , Thermoplastic , ABS Polymer , Acrylonitrile Butadiene Styrene (ABS), 20% Carbon Fiber Filled

Material Notes:

This property data is a summary of similar materials in the MatWeb database for the category "Acrylonitrile Butadiene Styrene (ABS), 20% Carbon Fiber Filled". Specific grades with carbon fiber content between 15% and 24% 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-20-Carbon-Fiber-Filled.php

Physical Properties	Metric	English	Comments
Density	1.10 - 1.30 g/cc	0.0397 - 0.0470 lb/in ³	Average value: 1.16 g/cc Grade Count:16
Filler Content	15.0 - 20.0 %	15.0 - 20.0 %	Average value: 17.5 % Grade Count:6
Water Absorption	0.140 - 0.300 %	0.140 - 0.300 %	Average value: 0.187 % Grade Count:10
Linear Mold Shrinkage	0.000500 - 0.00300 cm/cm	0.000500 - 0.00300 in/in	Average value: 0.00146 cm/cm Grade Count:15

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	108	108	Average value: 108 Grade Count:6
Tensile Strength, Ultimate	78.0 - 117 MPa	11300 - 17000 psi	Average value: 99.0 MPa Grade Count:12
Tensile Strength, Yield	96.5 - 110 MPa	14000 - 16000 psi	Average value: 105 MPa Grade Count:4
Elongation at Break	1.00 - 2.00 %	1.00 - 2.00 %	Average value: 1.49 % Grade Count:14
Modulus of Elasticity	6.60 - 13.8 GPa	957 - 2000 ksi	Average value: 11.5 GPa Grade Count:9
Flexural Yield Strength	105 - 159 MPa	15200 - 23000 psi	Average value: 142 MPa Grade Count:15
Flexural Modulus	1.05 - 12.4 GPa	153 - 1800 ksi	Average value: 9.87 GPa Grade Count:16
Izod Impact, Notched	0.320 - 0.801 J/cm	0.600 - 1.50 ft-lb/in	Average value: 0.564 J/cm Grade Count:15
Izod Impact, Unnotched	2.14 - 5.34 J/cm	4.00 - 10.0 ft-lb/in	Average value: 2.96 J/cm Grade Count:10

Thermal Properties	Metric	English	Comments
CTE, linear	18.0 - 36.0 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$	10.0 - 20.0 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$	Average value: 28.8 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$ Grade Count:7
Deflection Temperature at 0.46 MPa (66 psi)	105 - 113 $^{\circ}\text{C}$	221 - 235 $^{\circ}\text{F}$	Average value: 110 $^{\circ}\text{C}$ Grade Count:8
Deflection Temperature at 1.8 MPa (264 psi)	87.8 - 107 $^{\circ}\text{C}$	190 - 225 $^{\circ}\text{F}$	Average value: 102 $^{\circ}\text{C}$ Grade Count:12
Flammability, UL94	HB - V-0	HB - V-0	Grade Count:9

Electrical Properties	Metric	English	Comments
Electrical Resistivity	1.00 ohm-cm - 1e+05	1.00 ohm-cm - 1e+05	Average value: 879 ohm-cm Grade Count:12
Surface Resistance	1.00 - 1.00e+6 ohm	1.00 - 1.00e+6 ohm	Average value: 75200 ohm Grade Count:7

Processing Properties	Metric	English	Comments
Melt Temperature	188 - 265 $^{\circ}\text{C}$	370 - 509 $^{\circ}\text{F}$	Average value: 228 $^{\circ}\text{C}$ Grade Count:8
Mold Temperature	40.0 - 85.0 $^{\circ}\text{C}$	104 - 185 $^{\circ}\text{F}$	Average value: 69.7 $^{\circ}\text{C}$ Grade Count:10
Drying Temperature	70.0 - 82.2 $^{\circ}\text{C}$	158 - 180 $^{\circ}\text{F}$	Average value: 81.0 $^{\circ}\text{C}$ Grade Count:8
Moisture Content	0.100 %	0.100 %	Average value: 0.100 % Grade Count:5
Dew Point	-17.8 $^{\circ}\text{C}$	0.000 $^{\circ}\text{F}$	Average value: -17.8 $^{\circ}\text{C}$ Grade Count:5
Injection Pressure	68.9 - 103 MPa	10000 - 15000 psi	Average value: 86.2 MPa Grade Count:7

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