

## Overview of materials for Acrylonitrile Butadiene Styrene (ABS), NCG Fiber Filled

Category : Polymer , Thermoplastic , ABS Polymer , Acrylonitrile Butadiene Styrene (ABS), NCG Fiber Filled

### Material Notes:

This property data is a summary of similar materials in the MatWeb database for the category "Acrylonitrile Butadiene Styrene (ABS), NCG Fiber Filled". 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-NCG-Fiber-Filled.php](http://www.lookpolymers.com/polymer_Overview-of-materials-for-Acrylonitrile-Butadiene-Styrene-ABS-NCG-Fiber-Filled.php)

Physical Properties	Metric	English	Comments
Density	1.07 - 1.51 g/cc	0.0387 - 0.0546 lb/in <sup>3</sup>	Average value: 1.30 g/cc Grade Count:18
Filler Content	5.00 - 40.0 %	5.00 - 40.0 %	Average value: 18.9 % Grade Count:18
Water Absorption	0.120 - 0.500 %	0.120 - 0.500 %	Average value: 0.223 % Grade Count:11
Linear Mold Shrinkage	0.000100 - 0.00300 cm/cm	0.000100 - 0.00300 in/in	Average value: 0.00150 cm/cm Grade Count:18

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	107 - 110	107 - 110	Average value: 109 Grade Count:4
Tensile Strength, Ultimate	44.8 - 121 MPa	6500 - 17500 psi	Average value: 69.7 MPa Grade Count:18
Elongation at Break	1.00 - 2.00 %	1.00 - 2.00 %	Average value: 1.41 % Grade Count:18
Modulus of Elasticity	5.17 - 17.9 GPa	750 - 2600 ksi	Average value: 8.75 GPa Grade Count:18
Flexural Yield Strength	72.4 - 138 MPa	10500 - 20000 psi	Average value: 103 MPa Grade Count:18
Flexural Modulus	4.48 - 17.2 GPa	650 - 2500 ksi	Average value: 7.75 GPa Grade Count:18
Compressive Yield Strength	48.3 - 58.6 MPa	7000 - 8500 psi	Average value: 53.4 MPa Grade Count:4
Izod Impact, Notched	0.374 - 0.801 J/cm	0.700 - 1.50 ft-lb/in	Average value: 0.605 J/cm Grade Count:18
Izod Impact, Unnotched	1.60 - 2.67 J/cm	3.00 - 5.00 ft-lb/in	Average value: 2.21 J/cm Grade Count:18

Thermal Properties	Metric	English	Comments
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Thermal Properties	Metric	English	Comments
	72.4 - 50.4 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$	15.0 - 28.0 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$	Average value: 39.0 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$ Grade Count:13
Deflection Temperature at 0.46 MPa (66 psi)	110 - 118 $^\circ\text{C}$	230 - 245 $^\circ\text{F}$	Average value: 111 $^\circ\text{C}$ Grade Count:13
Deflection Temperature at 1.8 MPa (264 psi)	104 - 116 $^\circ\text{C}$	220 - 240 $^\circ\text{F}$	Average value: 106 $^\circ\text{C}$ Grade Count:13
Flammability, UL94	HB - V-0	HB - V-0	Grade Count:15

Electrical Properties	Metric	English	Comments
Electrical Resistivity	1.00 - 100 ohm-cm	1.00 - 100 ohm-cm	Average value: 21.1 ohm-cm Grade Count:17
Surface Resistance	100 - 1.00e+6 ohm	100 - 1.00e+6 ohm	Average value: 72900 ohm Grade Count:14
Static Decay	2.00 sec	2.00 sec	Average value: 2.00 sec Grade Count:13

Processing Properties	Metric	English	Comments
Processing Temperature	199 - 238 $^\circ\text{C}$	390 - 460 $^\circ\text{F}$	Average value: 220 $^\circ\text{C}$ Grade Count:13
Melt Temperature	204 - 238 $^\circ\text{C}$	400 - 460 $^\circ\text{F}$	Average value: 221 $^\circ\text{C}$ Grade Count:5
Mold Temperature	62.8 - 85.0 $^\circ\text{C}$	145 - 185 $^\circ\text{F}$	Average value: 73.9 $^\circ\text{C}$ Grade Count:18
Drying Temperature	82.2 $^\circ\text{C}$	180 $^\circ\text{F}$	Average value: 82.2 $^\circ\text{C}$ Grade Count:5
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:18

## Contact Songhan Plastic Technology Co.,Ltd.

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