

Overview of materials for Polycarbonate/ABS Alloy, Antistat/Conductive

Category : Polymer , Thermoplastic , ABS Polymer , Polycarbonate/ABS Alloy, Antistat/Conductive

Material Notes:

This property data is a summary of similar materials in the MatWeb database for the category "Polycarbonate/ABS Alloy, Antistat/Conductive". 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-PolycarbonateABS-Alloy-AntistatConductive.php

Physical Properties	Metric	English	Comments
Density	1.15 - 1.51 g/cc	0.0415 - 0.0546 lb/in ³	Average value: 1.32 g/cc Grade Count:28
Filler Content	5.00 - 20.0 %	5.00 - 20.0 %	Average value: 12.5 % Grade Count:4
Water Absorption	0.100 - 0.120 %	0.100 - 0.120 %	Average value: 0.105 % Grade Count:4
Additive Loading	15.0 - 20.0 %	15.0 - 20.0 %	Average value: 18.3 % Grade Count:3
Linear Mold Shrinkage	0.00100 - 0.00800 cm/cm	0.00100 - 0.00800 in/in	Average value: 0.00455 cm/cm Grade Count:26

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	37.9 - 124 MPa	5500 - 18000 psi	Average value: 66.3 MPa Grade Count:25
Tensile Strength, Yield	54.0 - 58.0 MPa	7830 - 8410 psi	Average value: 56.3 MPa Grade Count:5
Elongation at Break	1.00 - 10.0 %	1.00 - 10.0 %	Average value: 5.61 % Grade Count:27
Elongation at Yield	3.30 - 4.10 %	3.30 - 4.10 %	Average value: 3.57 % Grade Count:3
Modulus of Elasticity	1.72 - 12.1 GPa	250 - 1750 ksi	Average value: 4.35 GPa Grade Count:25
Flexural Yield Strength	55.2 - 193 MPa	8000 - 28000 psi	Average value: 110 MPa Grade Count:28
Flexural Modulus	1.72 - 11.0 GPa	250 - 1600 ksi	Average value: 4.23 GPa Grade Count:28
Izod Impact, Notched	0.374 - 9.61 J/cm	0.700 - 18.0 ft-lb/in	Average value: 1.15 J/cm Grade Count:24
Izod Impact, Unnotched	2.67 - 5340 J/cm	5.00 - 10000 ft-lb/in	Average value: 5.94 J/cm Grade Count:24
Izod Impact, Notched (ISO)	5.00 - 6.00 kJ/m ²	2.38 - 2.86 ft-lb/in ²	Average value: 5.75 kJ/m ² Grade Count:4

Mechanical Properties (ISO)	Metric	English	Comments
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Thermal Properties	Metric	English	Comments
CTE, linear	39.6 - 77.0 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$	22.0 - 42.8 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$	Average value: 58.0 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$ Grade Count:5
CTE, linear, Transverse to Flow	64.0 - 70.0 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$	35.6 - 38.9 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$	Average value: 66.0 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$ Grade Count:3
Deflection Temperature at 1.8 MPa (264 psi)	82.0 - 122 $^{\circ}\text{C}$	180 - 251 $^{\circ}\text{F}$	Average value: 103 $^{\circ}\text{C}$ Grade Count:12
Flammability, UL94	HB - 5VA	HB - 5VA	Grade Count:16

Electrical Properties	Metric	English	Comments
Electrical Resistivity	1.00 - 9.90e+10 ohm-cm	1.00 - 9.90e+10 ohm-cm	Average value: 2.22e+9 ohm-cm Grade Count:26
Surface Resistance	1.00 - 9.90e+11 ohm	1.00 - 9.90e+11 ohm	Average value: 2.79e+10 ohm Grade Count:28
Static Decay	0.100 - 2.00 sec	0.100 - 2.00 sec	Average value: 1.18 sec Grade Count:21
Shielding Effectiveness	35.0 - 96.0 dB	35.0 - 96.0 dB	Average value: 70.3 dB Grade Count:5

Processing Properties	Metric	English	Comments
Melt Temperature	216 - 274 $^{\circ}\text{C}$	420 - 525 $^{\circ}\text{F}$	Average value: 257 $^{\circ}\text{C}$ Grade Count:22
Mold Temperature	37.8 - 93.3 $^{\circ}\text{C}$	100 - 200 $^{\circ}\text{F}$	Average value: 71.0 $^{\circ}\text{C}$ Grade Count:22
Drying Temperature	93.3 $^{\circ}\text{C}$	200 $^{\circ}\text{F}$	Average value: 93.3 $^{\circ}\text{C}$ Grade Count:22
Moisture Content	0.0200 %	0.0200 %	Average value: 0.0200 % Grade Count:22
Dew Point	-28.9 $^{\circ}\text{C}$	-20.0 $^{\circ}\text{F}$	Average value: -28.9 $^{\circ}\text{C}$ Grade Count:22
Injection Pressure	68.9 - 103 MPa	10000 - 15000 psi	Average value: 86.2 MPa Grade Count:22

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