

## Daikin POLYFLON M-12 PTFE Molding Powder, Fine Cut

Category : Polymer , Thermoplastic , Fluoropolymer , PTFE , Polytetrafluoroethylene (PTFE), Molded

### Material Notes:

Fine cut powder. Processing Methods: Compression molding. Features: Useful in making products requiring fine texture, especially insulation skiving tapes. Also allows uniform mixing of inorganic filler and pigment. Information provided by Daikin Industries.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Daikin-POLYFLON-M-12-PTFE-Molding-Powder-Fine-Cut.php](http://www.lookpolymers.com/polymer_Daikin-POLYFLON-M-12-PTFE-Molding-Powder-Fine-Cut.php)

Physical Properties	Metric	English	Comments
Specific Gravity	2.13 - 2.22 g/cc	2.13 - 2.22 g/cc	ASTM D792
Bulk Density	0.350 g/cc	0.0126 lb/in <sup>3</sup>	ASTM D894
Water Absorption	0.00 % @Thickness 8.50 mm, Time 86400 sec	0.00 % @Thickness 0.335 in, Time 24.0 hour	ASTM D570
Particle Size	50 µm	50 µm	Laser Method (Dry)
Viscosity	1.00e+13 - 1.00e+15 cP @Temperature 340 - 380 °C	1.00e+13 - 1.00e+15 cP @Temperature 644 - 716 °F	Melt viscosity
Linear Mold Shrinkage	0.020 - 0.050 cm/cm	0.020 - 0.050 in/in	
Deformation	5.0 %	5.0 %	6.7 MPa load, at 100°C, 24 hrs; ASTM D621
	7.0 %	7.0 %	13.7 MPa load, at 25°C, 24 hrs; ASTM D621

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	50 - 65	50 - 65	
Tensile Strength at Break	20.0 - 45.0 MPa	2900 - 6530 psi	ASTM D638
Elongation at Break	200 - 450 %	200 - 450 %	ASTM D638
Tensile Modulus	0.392 GPa	56.9 ksi	ASTM D638
Flexural Modulus	0.490 - 0.588 GPa	71.1 - 85.3 ksi	ASTM D790
Compressive Strength	5.00 - 6.00 MPa @Temperature 25.0 °C	725 - 870 psi @Temperature 77.0 °F	1% deformation; ASTM D695
Izod Impact, Unnotched	1.60 J/cm	3.00 ft-lb/in	ASTM D256
Coefficient of Friction	0.020 - 0.038	0.020 - 0.038	Non-lubricating

Mechanical Properties	Metric 0.0385	English 0.0385	Comments
Coefficient of Friction, Static	0.020	0.020	Coated-steel surface
Taber Abrasion, mg/1000 Cycles	<= 15.75	<= 15.75	9.8 N load, cs-10 wheel

Thermal Properties	Metric	English	Comments
CTE, linear	100 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$ @Temperature 23.0 - 60.0 $^\circ\text{C}$	55.6 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$ @Temperature 73.4 - 140 $^\circ\text{F}$	ASTM D696
Thermal Conductivity	0.250 W/m-K	1.74 BTU-in/hr-ft <sup>2</sup> - $^\circ\text{F}$	ASTM C177
Melting Point	327 $^\circ\text{C}$	621 $^\circ\text{F}$	
Maximum Service Temperature, Air	260 $^\circ\text{C}$	500 $^\circ\text{F}$	Continuous use
Flammability, UL94	V-0	V-0	
Oxygen Index	>= 95 %	>= 95 %	ASTM D2863

Electrical Properties	Metric	English	Comments
Volume Resistivity	<= 1.00e+18 ohm-cm	<= 1.00e+18 ohm-cm	ASTM D257
Dielectric Constant	2.1 @Frequency 1000 Hz	2.1 @Frequency 1000 Hz	ASTM D150
	2.1 @Frequency 1e+6 Hz	2.1 @Frequency 1e+6 Hz	ASTM D150
Dielectric Strength	19.0 kV/mm	483 kV/in	ASTM D149
Dissipation Factor	<= 0.000010 @Frequency 1000 Hz	<= 0.000010 @Frequency 1000 Hz	ASTM D150
	0.000020 @Frequency 1e+6 Hz	0.000020 @Frequency 1e+6 Hz	ASTM D150

Descriptive Properties	Value	Comments
Chemical Resistance	Excellent	
Contact Angle	110	Angle to level
Weatherability	Excellent	

## **Contact Songhan Plastic Technology Co.,Ltd.**

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