

## Daikin NEOFロン M-400H PCTFE Granular Molding Powder

Category : Polymer , Thermoplastic , Fluoropolymer , Polychlorotrifluoroethylene (PCTFE); Molded

### Material Notes:

NEOFロン PCTFE M-400 series is a high molecular weight type material which is suitable for applications requiring mechanical toughness and stress crack resistance. Description: Granular powders. Processing Methods: Compression molding, extrusion. Uses: Sheets, rods. Information provided by Daikin Industries.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Daikin-NEOFロン-M-400H-PCTFE-Granular-Molding-Powder.php](http://www.lookpolymers.com/polymer_Daikin-NEOFロン-M-400H-PCTFE-Granular-Molding-Powder.php)

Physical Properties	Metric	English	Comments
Specific Gravity	2.10 - 2.14 g/cc	2.10 - 2.14 g/cc	ASTM D792
Bulk Density	0.950 g/cc	0.0343 lb/in <sup>3</sup>	
Water Absorption	0.00 % @Thickness 8.50 mm, Time 86400 sec	0.00 % @Thickness 0.335 in, Time 24.0 hour	ASTM D570
Oxygen Transmission	3.00 cc-mm/m <sup>2</sup> -24hr-atm	7.62 cc-mil/100 in <sup>2</sup> -24hr-atm	at 25°C
Nitrogen Transmission	0.500 cc-mm/m <sup>2</sup> -24hr-atm	1.27 cc-mil/100 in <sup>2</sup> -24hr-atm	at 25°C
Viscosity	1.00e+11 cP @Temperature 230 °C	1.00e+11 cP @Temperature 446 °F	Melt viscosity
Linear Mold Shrinkage	0.015 - 0.020 cm/cm	0.015 - 0.020 in/in	
Deformation	0.20 %	0.20 %	13.7 MPa load, at 25°C, 24 hrs; ASTM D621
	2.6 %	2.6 %	6.7 MPa load, at 100°C, 24 hrs; ASTM D621

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	80	80	
Tensile Strength at Break	31.0 - 41.0 MPa	4500 - 5950 psi	ASTM D638
Elongation at Break	80 - 250 %	80 - 250 %	ASTM D638
Tensile Modulus	1.029 - 2.058 GPa	149.2 - 298.5 ksi	ASTM D638
Flexural Modulus	1.274 - 1.764 GPa	184.8 - 255.9 ksi	ASTM D790
Compressive Strength	9.00 - 12.0 MPa @Temperature 25.0 °C	1310 - 1740 psi @Temperature 77.0 °F	1% deformation; ASTM D695

Mechanical Properties	Metric	English	Comments
Wood Impact, Unnotched	1.33 - 1.44 J/cm	2.70 - 2.70 ft-lb/in	ASTM D256
Coefficient of Friction, Static	0.080	0.080	Coated-steel surface
Taber Abrasion, mg/1000 Cycles	<= 40.0	<= 40.0	Calculated using estimated density, 9.8 N load, cs-10 wheel

Thermal Properties	Metric	English	Comments
CTE, linear	45.0 - 70.0 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$ @Temperature 23.0 - 60.0 $^{\circ}\text{C}$	25.0 - 38.9 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$ @Temperature 73.4 - 140 $^{\circ}\text{F}$	ASTM D696
Thermal Conductivity	0.200 - 0.220 W/m-K	1.39 - 1.53 BTU-in/hr-ft <sup>2</sup> - $^{\circ}\text{F}$	ASTM C177
Melting Point	210 - 212 $^{\circ}\text{C}$	410 - 414 $^{\circ}\text{F}$	
Maximum Service Temperature, Air	120 $^{\circ}\text{C}$	248 $^{\circ}\text{F}$	Continuous use
Flammability, UL94	V-0	V-0	
Oxygen Index	>= 95 %	>= 95 %	ASTM D2863

Electrical Properties	Metric	English	Comments
Volume Resistivity	<= 1.00e+16 ohm-cm	<= 1.00e+16 ohm-cm	ASTM D257
Dielectric Constant	2.3 - 2.5 @Frequency 1e+6 Hz	2.3 - 2.5 @Frequency 1e+6 Hz	ASTM D150
	2.3 - 2.7 @Frequency 1000 Hz	2.3 - 2.7 @Frequency 1000 Hz	ASTM D150
Dielectric Strength	20.0 - 24.0 kV/mm @Thickness 3.20 mm	508 - 610 kV/in @Thickness 0.126 in	Short time; ASTM D149
Dissipation Factor	0.010 @Frequency 1e+6 Hz	0.010 @Frequency 1e+6 Hz	ASTM D150
	0.023 - 0.027 @Frequency 1000 Hz	0.023 - 0.027 @Frequency 1000 Hz	ASTM D150

Descriptive Properties	Value	Comments
Chemical Resistance	Excellent	
Contact Angle	84	Angle to level
Flow Value		Measured by flow tester at 230 $^{\circ}\text{C}$ , under load 9.8 MPa (nozzle size 1 mm in dia., 1 mm in length)

Descriptive Properties	Value	Comments
Weatherability	Excellent	
Zero Strength Time	301-4501 s	ASTM D1430-78, at 250°C

## Contact Songhan Plastic Technology Co.,Ltd.

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