

Nyco M1250 WOLLASTOCOAT® Wollastonite

Category : Ceramic , Oxide , Silicon Oxide , Other Engineering Material , Additive/Filler for Polymer

Material Notes:

Chemically treated grade. Wollastonite is a naturally occurring white mineral with an acicular (needle-shaped) particle structure. This distinctive particle morphology makes wollastonite an ideal performance mineral for a broad range of industrial and consumer applications, including polymer reinforcement; coatings; construction/architecture reinforcement; enhancing friction stability in discs, lings, and brakes; and metallurgy. Information provided by NYCO Minerals.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Nyco-M1250-WOLLASTOCOAT-Wollastonite.php

| Physical Properties | Metric | English | Comments |
|-----------------------|-----------------------|---------------------------|-------------------|
| Bulk Density | 0.720 g/cc | 0.0260 lb/in ³ | Loose |
| | 0.910 g/cc | 0.0329 lb/in ³ | Tapped |
| Density | 2.90 g/cc | 0.105 lb/in ³ | |
| Brightness | 89 % | 89 % | G.E. Brightness |
| Oil Absorption | 25 % | 25 % | |
| Solubility in Water | 0.0095 % | 0.0095 % | |
| Moisture Absorption | 0.120 % | 0.120 % | |
| Particle Size | >= 1.0 µm | >= 1.0 µm | 10% smaller than |
| | 4.0 µm | 4.0 µm | median; Microtrac |
| | <= 13 µm | <= 13 µm | 90% smaller than |
| pH | 9.9 | 9.9 | 10% Slurry |
| Specific Surface Area | 3.0 m ² /g | 3.0 m ² /g | BET |
| Molecular Weight | 116 g/mol | 116 g/mol | |

| Mechanical Properties | Metric | English | Comments |
|-----------------------|------------------------------|---------------------------------|----------------|
| Hardness, Mohs | 4.5 | 4.5 | |
| Tensile Strength | 2700 - 4100 MPa | 392000 - 595000 psi | Fiber Strength |
| | @Diameter 0.00300 - 0.150 mm | @Diameter 0.000118 - 0.00591 in | |
| Modulus of Elasticity | 303 - 530 GPa | 43900 - 76900 ksi | Fiber Modulus |
| | @Diameter 0.00300 - 0.150 mm | @Diameter 0.000118 - 0.00591 in | |

| Mechanical Properties | Metric | English | Comments |
|-----------------------|--|--|-------------|
| CTE, linear | 6.50 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$ | 3.61 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$ | |
| Thermal Conductivity | 2.63 - 2.77 W/m-K | 18.3 - 19.2 BTU-in/hr-ft ² - $^{\circ}\text{F}$ | |
| Melting Point | 1410 $^{\circ}\text{C}$ | 2570 $^{\circ}\text{F}$ | ASTM D1857 |
| | 1540 $^{\circ}\text{C}$ | 2800 $^{\circ}\text{F}$ | theoretical |

| Optical Properties | Metric | English | Comments |
|--------------------|--------|---------|----------|
| Refractive Index | 1.63 | 1.63 | |

| Component Elements Properties | Metric | English | Comments |
|--------------------------------|---------|---------|----------|
| Al ₂ O ₃ | 0.30 % | 0.30 % | |
| CaO | 44.94 % | 44.94 % | |
| Fe ₂ O ₃ | 0.28 % | 0.28 % | |
| K ₂ O | 0.23 % | 0.23 % | |
| Loss on Ignition(%) | 0.47 % | 0.47 % | |
| MgO | 0.75 % | 0.75 % | |
| MnO | 0.040 % | 0.040 % | |
| SiO ₂ | 52.94 % | 52.94 % | |
| TiO ₂ | 0.050 % | 0.050 % | |

| Electrical Properties | Metric | English | Comments |
|------------------------|-----------------------|-----------------------|-------------------|
| Electrical Resistivity | 1.30e+13 ohm-cm | 1.30e+13 ohm-cm | pure wollastonite |
| Dielectric Constant | 6.8 | 6.8 | |
| | @Frequency 10000 Hz | @Frequency 10000 Hz | |
| | 6.8 | 6.8 | |
| | @Frequency 100000 Hz | @Frequency 100000 Hz | |
| | 6.9 | 6.9 | |
| | @Frequency 1.00e+6 Hz | @Frequency 1.00e+6 Hz | |
| | 6.9 | 6.9 | |

| Electrical Properties | Metric | English | Comments |
|-----------------------|-----------------------|-----------------------|----------|
| Dissipation Factor | 0.00152 | 0.00152 | |
| | @Frequency 1000 Hz | @Frequency 1000 Hz | |
| | 0.0046 | 0.0046 | |
| | @Frequency 10000 Hz | @Frequency 10000 Hz | |
| | 0.0046 | 0.0046 | |
| | @Frequency 1.00e+6 Hz | @Frequency 1.00e+6 Hz | |
| | 0.0078 | 0.0078 | |
| | @Frequency 100000 Hz | @Frequency 100000 Hz | |

| Descriptive Properties | Value | Comments |
|--------------------------------|----------|----------|
| Appearance | White | |
| Bulking Value (gal./lbs.) | 0.0413 | |
| Minus 400 U.S. Mesh Screen (%) | 100 | |
| Morphology | Acicular | |

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