

## Manifattura Cattaneo PTFE Polytetrafluoroethylene

Category : Polymer , Thermoplastic , Fluoropolymer , PTFE

### Material Notes:

Manifattura Cattaneo products are available in semi-finished forms such as bars, profiles, sheets and plates. Information provided by Manifattura Cattaneo s.p.a.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Manifattura-Cattaneo-PTFE-Polytetrafluoroethylene.php](http://www.lookpolymers.com/polymer_Manifattura-Cattaneo-PTFE-Polytetrafluoroethylene.php)

| Physical Properties                | Metric                             | English                         | Comments          |
|------------------------------------|------------------------------------|---------------------------------|-------------------|
| Density                            | 2.21 g/cc                          | 0.0798 lb/in <sup>3</sup>       | ASTM D792         |
| Moisture Absorption at Equilibrium | 0.00 %<br>@Temperature 23.0<br>Â°C | 0.00 %<br>@Temperature 73.4 Â°F | 50% RH; ASTM D570 |
| Water Absorption at Saturation     | 0.00 %                             | 0.00 %                          | ASTM D570         |

| Mechanical Properties            | Metric  | English                                      | Comments   |
|----------------------------------|---|--|--|
| Hardness, Shore D                | 51  | 51   | ASTM D 2240  |
| Tensile Strength at Break        | 28.0 - 35.0 MPa                                 | 4060 - 5080 psi                              | ASTM D638  |
| Tensile Strength, Yield          | 12.0 - 15.0 MPa                                 | 1740 - 2180 psi                              | ASTM D638  |
| Elongation at Break              | 210 - 500 %                                     | 210 - 500 %                                  | ASTM D638  |
| Elongation at Yield              | 25 %  | 25 %   | ASTM D638  |
| Tensile Modulus                  | 0.450 - 0.750 GPa                               | 65.3 - 109 ksi                               | ASTM D638  |
| Compressive Yield Strength       | 4.40 MPa<br>@Strain 1.00 %,<br>Time 3.60e+6 sec | 638 psi<br>@Strain 1.00 %,<br>Time 1000 hour | ASTM D695  |
| Compressive Modulus              | 0.420 GPa                                       | 60.9 ksi                                     | ASTM D695  |
| Poissons Ratio                   | 0.40  | 0.40   |  |
| Izod Impact, Notched (ISO)       | 15.6 kJ/m <sup>2</sup>                          | 7.42 ft-lb/in <sup>2</sup>                   | ASTM D256  |
| Izod Impact, Unnotched (ISO)     | NB  | NB   | ASTM D256  |
| Coefficient of Friction, Dynamic | 0.12  | 0.12   | on polished steel; MPC Test                        |
| Coefficient of Friction, Static  | 0.16  | 0.16   | on polished steel; MPC Test                        |
| K Factor (Wear Factor)           | 65  | 65   | Âµm/s. PV = 0.1 MPa-m/s; max P = 4.4 MPa; MPC Test |

| Mechanical Properties                       | Metric  | English  | Comments     |
|---|---|--|--------------|
| Thermal Properties                          | Metric  | English  | Comments     |
| CTE, linear, Parallel to Flow               | 160 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$<br>@Temperature 23.0 - 100 $\text{Å}^\circ\text{C}$ | 88.9 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$<br>@Temperature 73.4 - 212 $\text{Å}^\circ\text{F}$ |              |
| CTE, linear, Transverse to Flow             | 120 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$<br>@Temperature 23.0 $\text{Å}^\circ\text{C}$       | 66.7 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$<br>@Temperature 73.4 $\text{Å}^\circ\text{F}$       |              |
| Maximum Service Temperature, Air            | 260 $\text{Å}^\circ\text{C}$  | 500 $\text{Å}^\circ\text{F}$   |              |
| Deflection Temperature at 0.46 MPa (66 psi) | 135 $\text{Å}^\circ\text{C}$  | 275 $\text{Å}^\circ\text{F}$   | ASTM D648-45 |
| Deflection Temperature at 1.8 MPa (264 psi) | 55.0 $\text{Å}^\circ\text{C}$   | 131 $\text{Å}^\circ\text{F}$   | ASTM D648-45 |
| Minimum Service Temperature, Air            | -240 $\text{Å}^\circ\text{C}$   | -400 $\text{Å}^\circ\text{F}$  |              |
| Flammability, UL94                          | V-0   | V-0  |              |

| Electrical Properties | Metric                            | English                           | Comments  |
|-----------------------|-----------------------------------|-----------------------------------|-----------|
| Volume Resistivity    | 1.00e+20 ohm-cm                   | 1.00e+20 ohm-cm                   | ASTM D257 |
| Surface Resistance    | 1.00e+17 ohm                      | 1.00e+17 ohm                      | ASTM D257 |
| Dielectric Constant   | 2.1<br>@Frequency 1.00e+6 Hz      | 2.1<br>@Frequency 1.00e+6 Hz      | ASTM D150 |
| Dielectric Strength   | 25.0 kV/mm<br>@Thickness 2.00 mm  | 635 kV/in<br>@Thickness 0.0787 in | ASTM D149 |
| Dielectric Loss Index | 0.000070<br>@Frequency 1.00e+6 Hz | 0.000070<br>@Frequency 1.00e+6 Hz | ASTM D150 |

| Compliance Properties | Metric | English | Comments |
|-----------------------|--------|---------|----------|
| FDA                   | Yes    | Yes     |          |

| Descriptive Properties | Value | Comments |
|------------------------|-------|----------|
| Color                  | White |          |
| UV Resistance          | Y     |          |

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

**Website : [www.lookpolymers.com](http://www.lookpolymers.com)**

**Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)**

**Tel : +86 021-51131842**

**Mobile : +86 13061808058**

**Skype : lookpolymers**

**Address : United North Road 215,Fengxian District, Shanghai City,China**