

## Sapco 99.9% Aluminum Oxide

Category : Ceramic , Oxide , Aluminum Oxide

### Material Notes:

Information provided by Sapco.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Sapco-999-Aluminum-Oxide.php](http://www.lookpolymers.com/polymer_Sapco-999-Aluminum-Oxide.php)

| Physical Properties | Metric    | English                  | Comments |
|---------------------|-----------|--------------------------|----------|
| Density             | 3.97 g/cc | 0.143 lb/in <sup>3</sup> |          |
| Open Porosity       | 0.00 %    | 0.00 %                   |          |
| Weibull Modulus     | >= 10     | >= 10                    |          |

| Mechanical Properties      | Metric   | English    | Comments   |
|----------------------------|----------|------------|------------|
| Hardness, Mohs             | 9.0      | 9.0        |            |
| Tensile Strength, Ultimate | 300 MPa  | 43500 psi  |            |
| Modulus of Elasticity      | 400 GPa  | 58000 ksi  |            |
| Flexural Strength          | 550 MPa  | 79800 psi  |            |
| Compressive Strength       | 3800 MPa | 551000 psi |            |
| Poissons Ratio             | 0.24     | 0.24       |            |
| Shear Modulus              | 161 GPa  | 23400 ksi  | Calculated |

| Thermal Properties               | Metric  | English  | Comments |
|----------------------------------|---|--|----------|
| CTE, linear                      | 8.90 $\mu\text{m/m}\cdot\text{Å}^\circ\text{C}$ | 4.94 $\mu\text{in/in}\cdot\text{Å}^\circ\text{F}$        |          |
|                                  | @Temperature 20.0 $\text{Å}^\circ\text{C}$      | @Temperature 68.0 $\text{Å}^\circ\text{F}$               |          |
| Specific Heat Capacity           | 0.800 J/g- $\text{Å}^\circ\text{C}$             | 0.191 BTU/lb- $\text{Å}^\circ\text{F}$                   |          |
| Thermal Conductivity             | 30.0 W/m-K                                      | 208 BTU-in/hr-ft <sup>2</sup> - $\text{Å}^\circ\text{F}$ |          |
| Maximum Service Temperature, Air | 1800 $\text{Å}^\circ\text{C}$                   | 3270 $\text{Å}^\circ\text{F}$                            |          |

| Electrical Properties  | Metric          | English         | Comments |
|------------------------|-----------------|-----------------|----------|
| Electrical Resistivity | 1.00e+14 ohm-cm | 1.00e+14 ohm-cm |          |
| Dielectric Constant    | 9.6             | 9.6             |          |

| Electrical Properties | @Frequency 1e+6 Hz<br>Metric  | @Frequency 1e+6 Hz<br>English | Comments |
|-----------------------|-------------------------------|-------------------------------|----------|
| Dielectric Strength   | 30.0 kV/mm                    | 762 kV/in                     | AC       |
| Dissipation Factor    | 0.00080<br>@Frequency 1e+6 Hz | 0.00080<br>@Frequency 1e+6 Hz |          |
| Dielectric Loss Index | 0.0080                        | 0.0080                        |          |

## 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