

## Ceradyne Ceralloy® 1370DP Aluminum Nitride

Category : Ceramic , Nitride

### Material Notes:

Features:high thermal conductivityApplications:semiconductor componentsmicrowave componentsInformation provided by Ceradyne Company

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Ceradyne-Ceralloy-1370DP-Aluminum-Nitride.php](http://www.lookpolymers.com/polymer_Ceradyne-Ceralloy-1370DP-Aluminum-Nitride.php)

| Physical Properties | Metric    | English                  | Comments |
|---------------------|-----------|--------------------------|----------|
| Density             | 3.30 g/cc | 0.119 lb/in <sup>3</sup> |          |
| Weibull Modulus     | 10        | 10                       |          |

| Mechanical Properties | Metric                          | English                           | Comments   |
|-----------------------|---------------------------------|-----------------------------------|------------|
| Vickers Microhardness | 1100                            | 1100                              |            |
| Modulus of Elasticity | 320 GPa                         | 46400 ksi                         |            |
| Flexural Strength     | 200 MPa<br>@Temperature 23.0 °C | 29000 psi<br>@Temperature 73.4 °F |            |
| Poissons Ratio        | 0.22                            | 0.22                              |            |
| Fracture Toughness    | 3.00 MPa-m <sup>1/2</sup>       | 2.73 ksi-in <sup>1/2</sup>        |            |
| Shear Modulus         | 131 GPa                         | 19000 ksi                         | calculated |

| Thermal Properties   | Metric                                      | English                                       | Comments |
|----------------------|---|---|----------|
| CTE, linear          | 6.20 µm/m-°C<br>@Temperature 20.0 - 1000 °C | 3.44 µin/in-°F<br>@Temperature 68.0 - 1830 °F |          |
| Thermal Conductivity | 170 W/m-K                                   | 1180 BTU-in/hr-ft <sup>2</sup> -°F            |          |

| Electrical Properties  | Metric          | English         | Comments |
|------------------------|-----------------|-----------------|----------|
| Electrical Resistivity | 1.00e+15 ohm-cm | 1.00e+15 ohm-cm |          |
| Dielectric Constant    | 8.7             | 8.7             |          |

| Descriptive Properties | Value | Comments |
|------------------------|-------|----------|
| Grain Size, microns    | 10    |          |
| Purity, %              |       |          |

| Descriptive Properties | Value | Comments |
|------------------------|-------|----------|
|------------------------|-------|----------|

## Contact Songhan Plastic Technology Co.,Ltd.

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