

## Alliance BIF- 11 Bonded (Composite) Magnetic Material

Category : Ceramic , Metal , Electronic/Magnetic Alloy

Material Notes:

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Alliance-BIF-11-Bonded-Composite-Magnetic-Material.php](http://www.lookpolymers.com/polymer_Alliance-BIF-11-Bonded-Composite-Magnetic-Material.php)

| Physical Properties | Metric           | English                           | Comments |
|---------------------|------------------|-----------------------------------|----------|
| Density             | 2.60 - 3.60 g/cc | 0.0939 - 0.130 lb/in <sup>3</sup> |          |

| Mechanical Properties      | Metric          | English          | Comments |
|----------------------------|-----------------|------------------|----------|
| Tensile Strength, Ultimate | 30.0 - 80.0 MPa | 4350 - 11600 psi |          |
| Modulus of Elasticity      | 4.00 - 5.50 GPa | 580 - 798 ksi    |          |
| Flexural Strength          | 50.0 - 100 MPa  | 7250 - 14500 psi |          |

| Thermal Properties               | Metric  | English   | Comments     |
|----------------------------------|---|---|--------------|
| CTE, linear                      | 30.0 - 50.0 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$<br>@Temperature 20.0 $^\circ\text{C}$ | 16.7 - 27.8 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$<br>@Temperature 68.0 $^\circ\text{F}$ | Parallel DOM |
| Specific Heat Capacity           | $\leq 0.200 \text{ J}/\text{g}\cdot^\circ\text{C}$  | $\leq 0.0478 \text{ BTU}/\text{lb}\cdot^\circ\text{F}$  |              |
| Maximum Service Temperature, Air | 150 $^\circ\text{C}$  | 302 $^\circ\text{F}$  |              |

| Electrical Properties               | Metric                                | English                               | Comments  |
|-------------------------------------|---------------------------------------|---------------------------------------|-----------|
| Electrical Resistivity              | $\geq 1.00 \text{ ohm}\cdot\text{cm}$ | $\geq 1.00 \text{ ohm}\cdot\text{cm}$ |           |
| Magnetic Coercive Force, Hc         | 2200 Oe                               | 2200 Oe                               |           |
|                                     | 2900 Oe                               | 2900 Oe                               | Intrinsic |
| Magnetic Remanence, Br              | 2400 Gauss                            | 2400 Gauss                            |           |
| Magnetic Maximum Energy Product, BH | 1.4 MGOe                              | 1.4 MGOe                              |           |
| Curie Temperature                   | 450 $^\circ\text{C}$                  | 842 $^\circ\text{F}$                  |           |

| Descriptive Properties      | Value                     | Comments                   |
|-----------------------------|---------------------------|----------------------------|
| Reversible Temp Coef., Bd   | -0.20 $\%/^\circ\text{C}$ |                            |
| Reversible Temp Coef., Hd   | +0.27 $\%/^\circ\text{C}$ |                            |
| Temperature Coefficient, Br | -0.2 $\%/^\circ\text{C}$  | (20-100 $^\circ\text{C}$ ) |

| Descriptive Properties<br>Temperature, Content, Hcl | Value, /°C | Comments |
|---|------------|----------|
|---|------------|----------|

## Contact Songhan Plastic Technology Co.,Ltd.

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