

## Zircar Ceramics ALCAA Alumina Insulation

Category : Ceramic , Oxide , Aluminum Oxide

### Material Notes:

ALC is the same material as ZAL-15 - but brings exceptional uniformity in an insulation material in cylindrical form. Information provided by Zircar Ceramics.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Zircar-Ceramics-ALCAA-Alumina-Insulation.php](http://www.lookpolymers.com/polymer_Zircar-Ceramics-ALCAA-Alumina-Insulation.php)

| Physical Properties | Metric     | English                    | Comments |
|---------------------|------------|----------------------------|----------|
| Density             | 0.240 g/cc | 0.00867 lb/in <sup>3</sup> |          |
| Open Porosity       | 93 %       | 93 %                       |          |

| Thermal Properties               | Metric                                                  | English                                                  | Comments                            |
|----------------------------------|---------------------------------------------------------|----------------------------------------------------------|-------------------------------------|
| CTE, linear                      | 7.50 $\mu\text{m/m-}^{\circ}\text{C}$                   | 4.17 $\mu\text{in/in-}^{\circ}\text{F}$                  |                                     |
|                                  | @Temperature 20.0 - 1000 $^{\circ}\text{C}$             | @Temperature 68.0 - 1830 $^{\circ}\text{F}$              |                                     |
| Specific Heat Capacity           | 1.05 J/g- $^{\circ}\text{C}$                            | 0.250 BTU/lb- $^{\circ}\text{F}$                         |                                     |
| Thermal Conductivity             | 0.0700 W/m-K                                            | 0.486 BTU-in/hr-ft <sup>2</sup> - $^{\circ}\text{F}$     | parallel to thickness; ASTM C177-76 |
|                                  | @Temperature 400 $^{\circ}\text{C}$                     | @Temperature 752 $^{\circ}\text{F}$                      |                                     |
|                                  | 0.280 W/m-K                                             | 1.94 BTU-in/hr-ft <sup>2</sup> - $^{\circ}\text{F}$      | Parallel to Thickness; ASTM C177-76 |
|                                  | @Temperature 1650 $^{\circ}\text{C}$                    | @Temperature 3000 $^{\circ}\text{F}$                     |                                     |
| Melting Point                    | 1870 $^{\circ}\text{C}$                                 | 3400 $^{\circ}\text{F}$                                  |                                     |
| Maximum Service Temperature, Air | 1500 $^{\circ}\text{C}$                                 | 2730 $^{\circ}\text{F}$                                  | Continuous                          |
|                                  | 1550 $^{\circ}\text{C}$                                 | 2820 $^{\circ}\text{F}$                                  | Intermittent                        |
| Shrinkage                        | 2.00 %                                                  | 2.00 %                                                   | Perpendicular to Thickness          |
|                                  | @Temperature 1550 $^{\circ}\text{C}$ ,<br>Time 3600 sec | @Temperature 2820 $^{\circ}\text{F}$ ,<br>Time 1.00 hour |                                     |
|                                  | 6.00 %                                                  | 6.00 %                                                   | Perpendicular to Thickness          |
|                                  | @Temperature 1650 $^{\circ}\text{C}$ ,<br>Time 3600 sec | @Temperature 3000 $^{\circ}\text{F}$ ,<br>Time 1.00 hour |                                     |

| Component Elements Properties | Metric | English | Comments |
|-------------------------------|--------|---------|----------|
| Al2O3                         | 97 %   | 97 %    |          |
| SiO2                          | 3.0 %  | 3.0 %   |          |

| Descriptive Properties | Value   | Comments |
|------------------------|---------|----------|
| Bond                   | Alumina |          |
| Color                  | White   |          |

## Contact Songhan Plastic Technology Co.,Ltd.

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