

# DURAPOT™ CERAMICS

## High Temp, High Resistance Encapsulating and Embedding Materials

### Durapot™ 801 99% Pure Alumina Ceramic

Durapot™ 801 is a specially formulated, room temperature curing, 99% Pure Alumina Ceramic that offers the ultimate properties of pure Alumina.

No binders to contaminate even the most delicate systems. Offers high electrical resistance even at high temperatures.

This unique 99% Pure Alumina Ceramic finds uses in many electrical and metallurgical applications.

### Durapot™ 804 and 805 96% Pure Alumina Ceramic

Durapot™ 804 and 805 were formulated to provide a high strength, low cost Alumina potting and casting material.

Electrical and metallurgical properties are excellent.

Simply mix, pour and cure at room temperature.

Use Durapot™ 804 for small parts and 805 for large parts.



Encapsulating Electronic Components

### Durapot™ 809 Electrically Resistant Cement

The best, general purpose ceramic potting compound. Durapot™ 809 is a 2800°F, highly electrically resistant ceramic.

Use for potting, sealing and bonding. Just mix, apply and cure at room temperature.

Use in ignitions, heating coils, electronics and many production applications.

### Durapot™ 810 Thermally Conductive and Electrically Resistant Cement

810 is a 3000°F, highly thermal conductive, electrically resistant Alumina based, potting compound and adhesive that was developed to provide excellent electrical resistance at high temperatures and improved thermal conductivity for high power applications.

*Choose regular grade for maximum thermal conductivity or extra fine for small parts.*

### Durapot™ 814 High Speed Potting Cement

Durapot™ 814 was formulated for use where a fast cure is required. Just mix and apply. Will cure in 5 minutes at 175°F - 225°F or overnight at room temperature. It is an excellent choice for production applications.

### Durapot™ 820 Electrically Resistant Coating

A one component paint and coating. Just brush on and air dry to form a highly resistant, 3000°F coating containing over 85% Alumina. Use to coat wires, coils etc.

### Durapot™ 821 Low Expansion Cement

Durapot™ 821 is a Quartz based, fast curing adhesive and potting compound.

The perfect material for bonding and potting Quartz Lamps, Glassware, Fiber Cables or any low expansion material.

It is easy to use and allows fast cures when required. Ideal for use in production applications.

| Cat. No.          | Description                        | Quart       | Gallon       |
|-------------------|------------------------------------|-------------|--------------|
| Durapot™ 801..... | Powder & Activator .....           | Quart ..... | Gallon ..... |
| Durapot™ 804..... | Powder.....                        | Quart ..... | Gallon ..... |
| Durapot™ 805..... | Powder .....                       | Quart ..... | Gallon ..... |
| Durapot™ 809..... | Powder .....                       | Quart ..... | Gallon ..... |
| Durapot™ 810..... | Powder.....                        | Quart ..... | Gallon ..... |
| Durapot™ 814..... | Powder & Activator .....           | Quart ..... | Gallon ..... |
| Durapot™ 820..... | Paint .....                        | Quart ..... | Gallon ..... |
| Durapot™ 821..... | Powder & Activator ..... Pint..... | Quart ..... | Gallon ..... |

Quantity Pricing Available Upon Request

| Durapot™   | 801                 | 804                | 805                   | 809                    | 810                  | 814                      | 820                       | 821                  |
|--|---------------------|--------------------|-----------------------|------------------------|----------------------|--------------------------|---------------------------|----------------------|
| <b>SPECIAL FEATURE</b>                               | <b>Pure Alumina</b> | <b>Small Parts</b> | <b>Large Castings</b> | <b>High Dielectric</b> | <b>Thermal Cond.</b> | <b>Fast Cure</b>         | <b>Dielectric Coating</b> | <b>Low Expansion</b> |
| <b>BASE</b>  | <b>99% Alumina</b>  | <b>96% Alumina</b> | <b>96% Alumina</b>    | <b>MgO Base</b>        | <b>Alumina</b>       | <b>Zirconia Silicate</b> | <b>Alumina Oxide</b>      | <b>Fused Silica</b>  |
| <b>Temp Limit °F</b>                                 | <b>3350</b>         | <b>3000</b>        | <b>3000</b>           | <b>2800</b>            | <b>3000</b>          | <b>2000</b>              | <b>3000</b>               | <b>2500</b>          |
| Volume Resistivity (ohm-cm)                          | 10 <sup>15</sup>    | 10 <sup>10</sup>   | 10 <sup>10</sup>      | 10 <sup>11</sup>       | 10 <sup>11</sup>     | 10 <sup>8</sup>          | 10 <sup>12</sup>          | 10 <sup>8</sup>      |
| Dielectric Strength (volts/mil)                      | 350                 | 175                | 175                   | 270                    | 270                  | 125                      | 200                       | 125                  |
| Thermal Expansion (10 <sup>-6</sup> /°F)             | 4.30                | 4                  | 4                     | 2.60                   | 4.50                 | 4.50                     | 4                         | 0.30                 |
| Thermal Conductivity (BTU-in /°Fhr.Ft <sup>2</sup> ) | 8                   | 8                  | 10                    | 4                      | 15                   | 8                        | 2                         | 5                    |
| Chemical Resistance                                  | Good                | Good               | Good                  | Good                   | Good                 | Good                     | Good                      | Excellent            |
| Solvent Resistance                                   | Excellent           | Excellent          | Excellent             | Excellent              | Excellent            | Excellent                | Excellent                 | Excellent            |
| Pot Life   | 15 min.             | 30 min.            | 30 min.               | 20 min.                | 20 min               | 20 min                   | 10 min.                   | 20 min               |
| Components   | 2                   | 2                  | 2                     | 2                      | 2                    | 2                        | 1                         | 2                    |
| Color  | White               | White              | White                 | Tan                    | Tan                  | White                    | Red                       | White                |
| Mix Ratio Base                                       | 100 parts           | 100 parts          | 100 parts             | 100 parts              | 100 parts            | 100 parts                | one                       | 100 parts            |
| Activator  | 44 parts            | 19 parts           | 12 parts              | 13 parts               | 13 parts             | 30 parts                 | component                 | 44 parts             |
| Cure Cycle Time **                                   | 24 hrs.<br>R. T.    | 24 hrs.<br>R. T.   | 24 hrs.<br>R. T.      | 24 hrs.<br>R. T.       | 24 hrs.<br>R. T.     | 24 hrs.<br>R. T.         | 24 hrs.<br>R. T.          | 24 hrs.<br>R. T.     |

\*\*NOTE: Cure may be accelerated by mild heating @ 150°F - 200°F.  
Post cures @ 250°F will improve moisture resistance for 801, 808, 809, 814,821.