



# MINTEQ INTERNATIONAL INC.

A subsidiary of Minerals Technologies Inc.

## FIREX™ RX 2373

**FIREX™ RX 2373** is a modified epoxy binder filled with thermally active materials that form cooling gases when exposed to temperature in excess of 350 °F (177 °C). When heated to the range of 1000 - 5000 °F (538 – 2760 °C), a char forms that insulates by transpirational cooling and re-radiation. The filler materials act to efficiently control the release of gaseous molecular species.

The material offers the same performance as **FIREX™ RX 2390** and is appropriate for those applications needing a very smooth surface texture. All FIREX™ products adhere well to metals, wood, paper, and glass and readily accept a top coat.

**FIREX™ RX 2373** is a two part epoxy resin system capable of application through screeding, trowel or injection molding. Pot life and cure time are adjustable with the addition of small amounts of solvent and the material cures at room temperature to a final density of 0.045 (1.245 g/cc).

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FIREX™

Technical Data

RX-2373



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| Thermal and Physical Properties of FIREX™ RX-2373 and RX 2390 |                     |  |
|---|---------------------|--|
| Property  | ASTM or Test Method | Typical Values   |
| <b>Tensile Strength</b>                                       | D638-68             |  |
| @ -54 °C (-65 ° F)  |                     | 281 kg/cm <sup>2</sup> (4000 psi)                      |
| @ 21 °C (70 ° F)  |                     | 60 kg/cm <sup>2</sup> (810 psi)                        |
| @ 93 °C (200 ° F)   |                     | 3 kg/cm <sup>2</sup> (43 psi)                          |
| <b>Ultimate Elongation</b>                                    | D638-68             |  |
| @ -54 °C (-65 ° F)  |                     | X1 %   |
| @ 21 °C (70 ° F)  |                     | 3 %  |
| @ 93 °C (200 ° F)   |                     | 13 %   |
| <b>Compressive Strength</b>                                   | D695-63T            |  |
| @ -54 °C (-65 ° F)  |                     | 1188 kg/cm <sup>2</sup> (16900 psi)                    |
| @ 21 °C (70 ° F)  |                     | 175 kg/cm <sup>2</sup> (2490 psi)                      |
| @ 93 °C (200 ° F)   |                     | 11 kg/cm <sup>2</sup> (160 psi)                        |
| <b>Flexural Strength</b>                                      | D790-66             |  |
| @ -54 °C (-65 ° F)  |                     | 439 kg/cm <sup>2</sup> (6240 psi)                      |
| @ 21 °C (70 ° F)  |                     | 136 kg/cm <sup>2</sup> (1940 psi)                      |
| @ 93 °C (200 ° F)   |                     | 11 kg/cm <sup>2</sup> (160 psi)                        |
| <b>Shear Strength</b>   | D1002-64            |  |
| @ -54 °C (-65 ° F)  |                     | 149 kg/cm <sup>2</sup> (2120 psi)                      |
| @ 21 °C (70 ° F)  |                     | 48 kg/cm <sup>2</sup> (680 psi)                        |
| @ 93 °C (200 ° F)   |                     | 3 kg/cm <sup>2</sup> (49 psi)                          |
| <b>Izod Impact Strength</b>                                   | D256-56             |  |
| @ 21 °C (70 ° F)  |                     | 0.016 kg/cm <sup>2</sup> (0.52 psi)                    |
| <b>Coefficient of Thermal Expansion</b>                       | D696-44             | 0.94x10 <sup>-6</sup> cm/cm°C                          |
| <b>Thermal Conductivity</b>                                   | Cenco-Fitch         | 0.233 W/m°C<br>(0.135 BTU/(hr ft <sup>2</sup> )(°F/ft) |
| <b>Specific Heat</b>  | C351-61             | 1.968 J/g °K<br>(0.47 BTU/Lb -° F)                     |
| <b>Electric Resistivity</b>                                   | D257-66             | 1.28μΩcm   |
| <b>Dielectric Strength</b>                                    | D149-64             | 270 volts/mil  |
| <b>Arc Resistance</b>   | D494-61             | 78 sec   |
| <b>Dielectric Constant</b>                                    | D150-65T            |  |
| @ 60 °C   |                     | 25   |
| @ 1000 °C   |                     | 5.2  |
| <b>Dielectric Factor</b>                                      | D150-65T            |  |
| @ 60 °C   |                     | 0.34   |
| @ 1000 °C   |                     | 0.08   |

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