



# MINTEQ INTERNATIONAL INC.

A subsidiary of Minerals Technologies Inc.

## FIREX™ RX 2390

**FIREX™ RX 2390** 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.

Users can brush away the char layer after partial use and re-use the material or refurbish with additional material. All FIREX™ products adhere well to metals, wood, paper, and glass and readily accept a top coat.

**FIREX™ RX 2390** is a two part epoxy resin system capable of being applied spray, trowel, or prefabricated panels. The material has a shelf life of six months and holds on vertical surfaces without sagging or slumping. The material is capable of single pass application thickness of 60 mils (1.5 mm) and it cures at room temperature to a final density of 0.045 (1.245 g/cc)..

**FIREX™ RX 2390NS version is available without solvents.**

All information given and recommendations made herein are based upon our research and are believed to be accurate, but no guarantee, either expressed or implied, is made with respect thereto or with respect to the infringement of any patent. Our products are sold on the understanding that the user is solely responsible for determining their suitability for any purpose. This information is not to be copied, used in evidence, released for publication or public distribution without written permission from Minerals Technologies Inc.

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FIREX™

Technical Data

RX-2390



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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°K (0.135 BTU/(hr ft <sup>2</sup> )(°F/ft)
<b>Specific Heat</b>	C351-61	1.968 J/g °K (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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