

## **Unifrax XPE® MP Substrate Support Mat**

Category: Ceramic

## **Material Notes:**

XPE®-MP is a multipurpose, third-generation support mat system developed by Unifrax specifically for mechanical support and insulation of ceramic substrates used in diesel and gasoline emission control devices. This revolutionary product combines the unique performance characteristics of both non-intumescent and vermiculite-based mats in the same product. At low operating temperatures (less than 350°C), the product will behave as a non-intumescent mat, relying on its spring-like ceramic fiber matrix to provide the holding force required for the system. At temperatures above 350°C, a second feature of the product is activated. Small amounts of vermiculite particles within the fiber matrix compensate for thermal gap expansion of the shell, thus providing additional holding force to the ceramic substrate. As a result, XPE-MP is an ideal solution for a wide range of emission control devices, including large diesel oxidation catalysts (DOC), diesel particulate filters (DPF), selective catalyst reduction units (SCR) as well as gasoline oxidation catalysts, including E-85 underbody converters. Support mat long-term durability is one of the critical issues involved in assuring a robust design for high-efficiency emission control systems. A variety of mechanisms are currently available to improve long-term cold holding performance and erosion resistance, but they may add extra production steps and cost to the system. XPE-ME has been designed to provide robust performance without the need for wire mesh ring protection (for erosion) or heat treatment for additional holding force at low temperatures. Information Provided by Unifrax I LLC

Order this product through the following link: http://www.lookpolymers.com/polymer\_Unifrax-XPE-MP-Substrate-Support-Mat.php

| Physical Properties | Metric   | English  | Comments |
|---------------------|----------|----------|----------|
| Loss On Ignition    | >= 6.5 % | >= 6.5 % |          |

| Mechanical Properties   | Metric       | English     | Comments |
|-------------------------|--------------|-------------|----------|
| Tensile Strength, Yield | >= 0.100 MPa | >= 14.5 psi |          |

| Thermal Properties   | Metric              | English                             | Comments |
|----------------------|---------------------|-------------------------------------|----------|
| Thermal Conductivity | 0.120 W/m-K         | 0.833 BTU-in/hr-ft <sup>2</sup> -°F |          |
|                      | @Temperature 650 °C | @Temperature 1200 °F                |          |

| Descriptive Properties | Value | Comments |
|------------------------|-------|----------|
| Binder Content (%)     | 5-10  |          |
| Fiberfrax® Fibers (%)  | 60-70 |          |
| Vermiculite (%)        | 21-31 |          |

## **Contact Songhan Plastic Technology Co.,Ltd.**

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