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THE TALE OF TWO ENDOTHERMIC MAT SERIES

3M currently offers two endothermic mats for use as fire protection in nuclear power plants. The two mats are called 3M Interam™ E-53A and 3M Interam™ E-54A and they are known as the 3M Interam™ E-50 Series Mats. Both are flexible mat products which are commonly used to provide one or three hours of fire protection to electrical raceways. The E-53A is green and is .3 inches (7,6 mm) thick. The E-54A is blue and is .4 inches (10,2 mm) thick. Except for color and thickness, these products are the same.

Likewise, 3M offers two endothermic mats for use in non-nuclear fire protection applications. The two mats are called 3M Interam™ E-5A-3 and 3M Interam™ E-5A-4 and they are known as the 3M Interam™ E-5 Series Mats. They are identical in form and function to the 3M Interam™ E-50 Series Mats, but lack the same level of documentation and tests which are required by the nuclear industry. Therefore, the E-50 Series Mats may be substituted for any application which specifies the use of the E-5 Series Mats, but not vice-versa.

These current mat products (E-50 Series and E-5 Series) are direct replacements for previous 3M Interam™ Mat products called E-50A, E-10A, E-5A and E-50D. These former products were .2 inches (5,1 mm), .2 inches (5,1 mm), .3 inches (7,6 mm) and .4 inches (10,2 mm) respectively. Both old and current mat products are identical in composition except thickness and color. Therefore, when considering only fire protection performance, it is acceptable to substitute one mat type (or mat combination) for any other as long as the total system thickness of the substitute mat layers are equal to or greater than the originally specified mat system thickness. So, all future applications which presently specify E-50A, E-10A, E-5A or E-50D, can use the E-50 Series Mats or E-5 Series Mats as substitutes. Likewise, all test information specific to one mat type can be interpreted to be the same for any other mat type (or mat combination) when applied at the same thickness.

Be aware that mat substitutions which result in an increase in the system thickness will result in greater system weight and may increase the ampacity derating of the electrical raceways.

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