



FIREPROTECT

Data Sheet

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64854 Intumescent Mat

Manufacturers & Suppliers of Passive Fire Protection Products

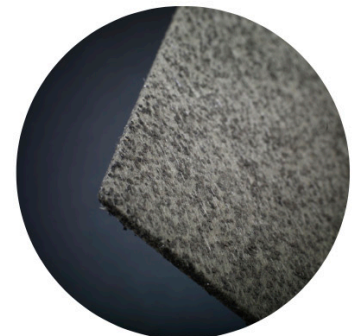
64854 Mat is a range of versatile intumescent fire protection materials.

These materials provide highly effective passive fire protection solutions for a broad range of applications, including composite fabrications & construction gap filling.

Also these materials are classified as INTUMESCENTS, they expand as a result of heat exposure to provide passive fire protection. The material will expand uni-directionally in the z direction by up to 35 times its original thickness when it is exposed to fire or temperatures in excess of 190°C (374°F). The result of this expansion is a thick insulating char. This stabilised char significantly reduces the rate of degradation of underlying materials by insulating them from the heat energy.

MATERIAL COMPOSITION

Description:	Flexible, high density, thermally expandable intumescent mat
Composition:	Graphite based, with mineral & polyester fibre
Activation Temperature:	> 190°C / > 374°F
Typical Expansion Ratio:	1.0mm 35:1 (at 450°C / 840°F) 1.8mm 25:1 (at 450°C / 840°F) 2.3mm 25:1 (at 450°C / 840°F)



MATERIAL PROPERTIES

Thickness at 10 kPa(1.45lb/in ²)	mm	1.0	1.8	2.3
	mil	39	71	89
Typical Density at 10 kPa (1.45lb/in ²)	kg/m ³	1070	833	800
	lb/ft ³	64	50	48

The data in the table represents indicative values only. The user must be satisfied that the product is entirely suitable for the intended application.

APPLICATIONS: GAP FILLING

- Pipe wraps and collars
- Door edge seals
- Glazing seals
- Light fittings
- Ironmongery protection
- Grilles and vents
- Joint seals for building panel systems
- Linear gap seals
- Fire doors

Fire Test Data: E35M+ mat (previously 64854) has been tested in accordance with ASTM E84-11a. It recorded a Flame Spread Index (FSI) of 0 and Smoke Development Index (SDI) of 2, achieving a Class A rating. The qualifies E35M+ (64854) mat for use in walls, ceilings and plenums. It also recorded a Fire Propagation Index of 3 in BS476 part 6 testing and achieved Class 1 in BS476 Part 7, which measures the lateral spread of flame.

MATERIAL SUPPLY

Typical Supply Form		Roll
Roll Widths	mm	Up to 610
Typical Roll Length	m	10
Converting Options		Application of self adhesive backing (SAB) Custom cut shapes

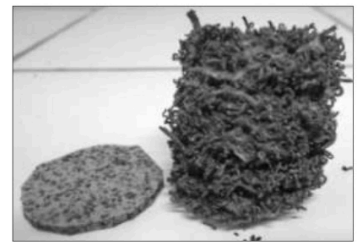
MATERIAL USE

64854 Mat is widely used in a broad range of **gap filling applications**. It exhibits unidirectional expansion; only expanding in the through plane. This means that there is no wasted expansion in planes where an increase in thickness is not needed.

Some typical gap filling applications where E35M+ Mat is used include:

- Pipe wraps and collars
- Door edge seals
- Glazing seals
- Light fittings
- Joint seals for building panel systems
- Grilles and vents
- Ironmongery protection
- Linear gap seals
- Fire doors

E35M+ Mat is available in a range of thicknesses designed to suit a variety of applications and, if a different expansion ratio is required, an alternative TECNOFIRE® grade can be used. TFP produce TECNOFIRE® materials with expansion ratios ranging from 4:1 up to 35:1. An optimum grade & thickness can be selected to prevent wasted expansion and materials can be readily supplied with a self adhesive backing to facilitate easy application or retrofitting.



▲ Before & after expansion

Self-Adhesive Backing

Technical Details

Thickness carrier + adhesive	0.100mm
Liner (white moisture stable)	0.100mm
Adhesion Open and closed	20 min - 24 hour 720n/m
Static Shear 1kg	72 hours
Release	10n/m
Temperature Range	-10°C to + 65°C
UV light resistance	No
Plasticiser resistance	No

Storage

Store in cool conditions in original packaging away from direct sunlight or heat source