JAMES CROPPER



TECNOFIRE®

E11MIL MAT

60172B

TECNOFIRE® provides integral and effective fire protection for composites, resisting burn through, flame spread, and heat insulation without compromising structure or requiring time-consuming application.

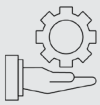
TECNOFIRE® 60172B

MATERIAL INFORMATION

TECNOFIRE® 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 when it is exposed to fire or temperatures in excess of 190°C (374°F), producing a thick insulative and stabilised char which reduces the degradation of the underlying composite materials by insulating them from heat energy.

DESCRIPTION	Flexible thermally expandable intumescent mat Graphite
COMPOSITION	based, with mineral & glass fibres
ACTIVATION TEMPERATURE	>190°C / >374°F
TYPICAL EXPANSION RATIO	11 : 1 (at 450°C / 840°F)

PERFORMANCE



› REDUCES SMOKE AND HEAT RELEASE WITHOUT TOXIC FUMES
› DOES NOT DISRUPT MECHANICAL PROPERTIES
› INTEGRAL TO COMPOSITE STRUCTURE

COMPLIANCE



› PROTECTS THE UNDERLYING STRUCTURE FROM HEAT AND FIRE
› HELPS PASS KEY FIRE SAFETY STANDARDS

REDUCED PROCESSING



› INCORPORATED DIRECTLY INTO A COMPOSITE USING STANDARD PROCESSING TECHNIQUES
› NO ADDITIONAL PROCESS STEPS
› NO NEED FOR POST COATING

WATCH TECNOFIRE IN ACTION

TECNOFIRE® 60172B

MATERIAL PROPERTIES

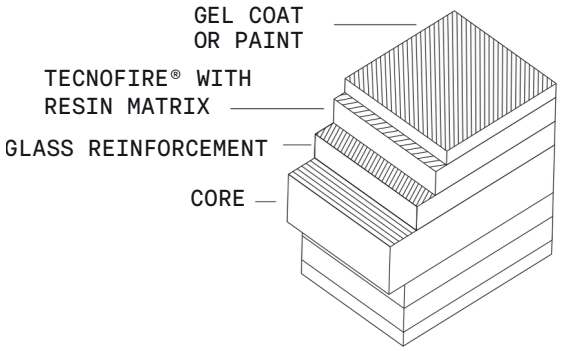
THICKNESS AT 10 kPa (1.45lb/in²)	mm mil	0.65 26	1.0 39
TYPICAL DENSITY AT 10 kPa (1.45lb/in²)	kg/m³ lb/ft³	350 22	350 22
TENSILE STRENGTH	N/15mm lb/in	40 15	55 21

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

TECNOFIRE® 60172B

MATERIAL USE

Tecnofire® is readily infusible with resin, compatible with traditional fabrication methods, and incorporated as part of the composite lay-up, reducing the need for additional process steps. It is added near the surface of the composite, close to the fire risk, to maximise fire resistance whilst maintaining the strength and weight targets of the resin matrix. To increase fire performance further, it can also be combined with fire retardant (FR) resins and used as part of FR laminate composites assemblies.



TYPICAL APPLICATIONS

AUTOMOTIVE AND TRANSPORT - ENGINES, BEV BATTERY BOXES AND BODY PANELS | MARINE - HIGH SPEED YACHTS
CONSTRUCTION - BRIDGES, STRUCTURAL PANELS AND GAP FILLING | WIND TURBINE NACELLES | AIRCRAFT ENGINES

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MATERIAL SUPPLY

SUPPLY FORM	Roll
ROLL WIDTH	Up to 1220mm
ROLL LENGTH	100m
CONVERTING OPTIONS	Application of self adhesive backing (SAB).

ACCREDITATIONS

We provide assurance that all TECNOFIRE® materials are of the highest possible quality and our manufacturing processes are accredited to BS EN (AS) 9100: 2018 Global Aerospace Quality Standard, ISO 9001 : 2015 Quality Standard, ISO 14001 : 2015 Environmental Management and the OHSAS 18001 : 2007 Occupational Health & Safety Standard.

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