# **Passive Fire Protection**





# FM170 / FM190 B1 PU FOAM

Fire rated gun grade or hand held expanding polyurethane foam

# **FEATURES & BENEFITS**

- 2 hour fire rating tested to BS476 Part 20 and DIN 4102 Pt 1 (B1)
- Suitable for filling, sealing and insulation of joints and gaps in a variety of fire rated construction applications
- Forms a strong bond to concrete, brickwork, stone, plaster, wood, fibre concrete, metal, PVC and polystyrene
- Rapid curing formulation: Foam is tack free within 10 minutes, and can be cut or trimmed within 45 minutes (gun grade) and 60 minutes (hand held)

# DESCRIPTION

FM190 (gun grade) and FM170 (hand held) are fire rated gun grade and hand held expanding polyurethane foam. They can provide up to 2 hours fire resistance in linear joints, has excellent thermal and acoustic insulation properties and forms a strong bond to most construction materials.

#### **USAGE / PURPOSE**

FM170and FM190 are a modified one component polyurethane foam suitable for the filling / sealing of joints and gaps requiring fire rated properties. These include the perimeter sealing and fixing of fire resistant windows and doors and the sealing of mechanical and electrical service penetrations through compartment walls and floors.

#### LIMITATIONS

FM170and FM190 are not UV resistant and should be protected from sunlight with a suitable opaque sealant, filler or paint. As with all PU foams, it does not bond to polythene, Teflon®, siliconised or wax- like surfaces.

#### AVAILABILITY

Colour: Beige

Packaging:

750 ml pressurised canister (12 per box)

Technical Information		
	Test Method	Result
Composition		Polyurethane Foam
Water absorption	EN 1609	0.2%
Limits canister temperature		+5°C to +30°C (gun grade) +10°C to +30°C (hand held)
Limits ambient temperature		+5°C to +35°C (gun grade) +10°C to +35°C (hand held)
Density		20 - 30 kg/m3 (gun grade) 25 - 35 kg/m3 (hand held)
Tack free time	3 cm in width at 23°C and 50 % RH	10 minutes
Cutting time	3 cm in width at 23°C and 50 % RH	45 minutes (gun grade) 60 minutes (hand held)
Loading time		24 hours
Tensile strength	DIN 53455	81 kPa (gun grade) 129 kPa (hand held
Compressive strength (10%)		46 kPa (gun grade) 59 kPa (hand held)
Elongation at break		19% (gun grade) 18% (hand held)
Thermal conductivity	EN 12667	36 mW/m.K
Temperature resistance		Short Term: -40°C to +130°C Long Term: -40°C to +90°C



# PREPARATION

Always carry out a test to confirm compatibility prior to use. Protect floor coverings with paper or a plastic film. The surfaces must be dry, solid, stable and capable of carrying the load of the panels to be installed. Remove all loose particles, dust and grease. A speedier cure can be attained by moistening the substrates if needed.

# APPLICATION

FM190 - Shake the canister vigorously at least 20 times. Remove the protective cap and screw canister onto the PU foam gun.

Joints should be underfilled to allow for post expansion of the foam. Fill to approximately 80% of joint depth for optimum results.

FM170 - Shake the canister vigorously at least 20 times. Leaving the cap on the can, screw the nozzle firmly into the connector on the top of the trigger. Remove safety catch and pull the trigger to activate can.

Joints should be underfilled to allow for post expansion of the foam. Fill to approximately 50% of joint depth for optimum results.