



Appointed Distributors of



Monoammonium Phosphate-based
Intumescent Hardware Protection Products

TECHNICAL DATA



Description

Fire Protectors® Monoammonium Phosphate-based intumescent is bonded to a mineral fibre substrate. Upon heating it expands under low pressure creating a porous foaming intumescent thermal barrier, ideal for the use in hardware protection. The material is semi-rigid for ease of application enabling it to mould to the shape of the hardware. It is white in colour and can come with or without self adhesive backing.

Application

All hardware installed on a fire door must be fitted without compromising the integrity of the complete fire door assembly. Fire Protectors® Monoammonium Phosphate-based intumescent is a thin, high-performance sheet material that offers high levels of expansion and insulation, preventing heat transfer. Designed for use on hardware rebated into timber doorsets, such as:

- Locks and latches
- Flush bolts
- Concealed door closers

Properties

- Fire Protectors® Monoammonium Phosphate-based intumescent will expand between 25 and 95 times its original volume
- The foaming process begins at 150°C and is followed by a further surge at 300°C
- 1mm thickness is suitable for 30 & 60 minute timber applications
- Fine-poured foam provides excellent protection against high temperatures experienced during a fire
- Stable compound if stored away from excess moisture

Thickness

Manufactured in various thicknesses to meet customer requirements:

- 0.6mm (+0.1/-0.1mm)
- 1.0mm (+0.2/-0.2mm)
- 2.0mm (+0.2/-0.2mm)

Testing

Fire Protectors® Monoammonium Phosphate-based intumescent has been extensively tested to the latest British and European standards as follows:

- BS476 part 22: 1987 - 30 and 60 minute rating
- BS EN 1634-1: 2014 - 30, 60, 90 & 120 minuterating

Validation Testing

Every batch of intumescent material undergoes rigorous on-site validation testing to ensure it meets the minimum requirements as described below.

Thickness Testing

Each batch of intumescent is measured for thickness using a calibrated vernier. The reading must not exceed the following tolerances:

- 0.6mm (+0.1/-0.1mm)
- 1.0mm (+0.2/-0.2mm)
- 2.0mm (+0.2/-0.2mm)

Expansion Testing

Every batch of Intumescent will have two test samples cut enabling both the activation point and expansion ratio to be measured.

The tolerances of the test are set out below:

Activation Temperature	150° (+/-10°)
Expansion Ratio	>25x Volume

