

Door Protection



PYROSTRIP CONCEALED INTUMESCENT FIRE SEALS

Fire & smoke seals for door assemblies

INTRODUCTION

Using Pyrostrip 100EC or 500 range of high performance intumescent seals, it is possible for fire door manufacturers to produce doors, with the intumescent concealed into the door lipping. This allows Architects the opportunity to specify high quality fire resisting doors, without exposed seals conflicting with the decorative finish.

DESCRIPTION

PYROSTRIP 100EC or 500 intumescent seals are nominally 2mm thick and are produced to the necessary width to suit the required fire performance. PYROSTRIP 100 EC is white in colour, and PYROSTRIP 500 is charcoal grey.

APPLICATIONS

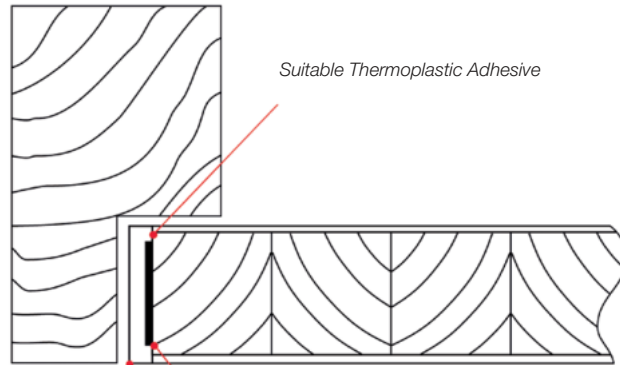
PYROSTRIP 100EC and 500 can be inserted into the back of timber lippings on the hanging and swinging stiles of fire resisting doors. The lipping should be grooved slightly bigger than the seal to allow for shrinkage of the timber.

ACTION

In a fire situation, the adhesive bonding of the lipping softens. As the temperature of the intumescent reaches approximately 100°C it begins to expand pushing off the lipping, wedging it against the door frame. This seals the gap and prevents the passage of smoke, hot gases and flames.

STORAGE

PYROSTRIP 100EC and 500 should be stored flat in dry conditions. The products should be handled with care.



Timber Lipping 6 - 8mm thick

PYROSTRIP 100 EC or 500
FD 30 = 30mm X 2mm
FD 60 = 40mm X 2mm

CONSTRUCTION

It is recommended that the width of the PYROSTRIP should be set between 7 to 10mm in from either face of the door leaf. The timber lipping should be between 6 to 8mm. For FD30 doors, it is possible to have PYROSTRIP concealed along the vertical edges and across the head of the door.

For FD60 doors, PYROSTRIP can be concealed along the vertical edges, but the head of the door/frame must have an exposed PVC encapsulated version. As a general rule the width of PYROSTRIP should be as follows: FD30 30mm x 2mm FD60 40mm x 2mm

The above is based on experience of successful fire tests conducted by numerous fire door manufacturers.

Suitable adhesives must used for bonding the lippings. They should exhibit a thermoplastic nature under fire conditions, such as, 2 pack polyurethane, hot melt adhesives or a suitably modified pva adhesive.

Suitably tested hinges must be used within the construction, to minimise the restriction of expansion of the PYROSTRIP in these areas.

PERFORMANCE

PYROSTRIP 100EC and 500 has been successfully fire tested to BS476 parts 8 and 22, NEN 6069, by various door manufacturers. A brief summary of some of the tests are as follows:

TESTS			
IT 198B	PYROSTRIP 500	30mm x 2mm	39 minutes
W 39230	PYROSTRIP 100EC	30mm x 2mm	39 minutes
FR 743/1	PYROSTRIP 100EC	30mm x 2mm	64 minutes
FR 650	PYROSTRIP 100EC	32mm x 2mm	40 minutes
FR 657	PYROSTRIP 100EC	32mm x 2mm	43 minutes
FR 643	PYROSTRIP 100EC	25mm x 2mm	35 minutes
FR 784	PYROSTRIP 100EC	38mm x 2mm	64 minutes