

Fire Resistance to Doors using Fire Varnish and Fire Varnish Overcoat

Please refer this to the appropriate Authority for approval before proceeding
Due to the hugely varying nature of doors and their construction, it is impractical and misleading to carry out NAMAS / UKAS Fire Test Laboratory fire door testing. Each door must be assessed for potential suitability.

The great majority of doors, including **all** hollow doors, are unsuitable for upgrading to 30 or even 20 minutes Fire Resistance.

There are, however, certain well constructed, solid and substantial doors capable of being upgraded with our Fire Varnish intumescent as this is by far the most effective clear fire treatment or coating available.

Generally suitable doors are hardwood or solid with hardwood veneer

Intumescent paint (white or coloured) is capable of significantly greater Fire Resistance. If you have softwood doors we suggest you refer to our "Fire Door Paint" information page .

Our Fire Varnish tested for Fire Resistance at a UKAS Fire Test laboratory for 30 mins . Results Indicated Thermoguard Fire Varnish added 15 mins Fire Resistance
Our Fire Varnish Class O Part 6 Fire Propagation Test and BS EN Class B result indicates the protected softwood did not burn significantly within the 10 mins (Part 6) and 20 mins (BS EN) test duration .
Further in-house testing indicated that when applied at three times the Class O / Class B spec. Thermoguard Fire Varnish intumescent added 15 minutes Fire Resistance.

We assess projects requiring 30 minutes Fire Resistance on an individual basis, referring to the TRADA Char Rate Tables and calculated residual timber to ascertain whether we could issue a Fire Certificate for the project.

In order to enable us to issue a 30 minutes Fire Certificate in the case of softwood the surface must be able to afford the loss of 10 mm depth from all surfaces exposed to a fire.

For oak or similar hardwoods the loss to take into account is 6 mm

In other words, the residual timber should be adequate, after such loss in the case of a door to avoid premature collapse, splitting or cracking ensuring neither flames or the substantial heat required to promote combustion can pass through the door.

Pine and Other Softwood.

In general terms few modern softwood doors can be protected with confidence.

Old and hence very well seasoned softwood doors can be protected but only if the frame can withstand 10mm loss. In these cases panels less than 16 mm thick should be supplemented by inserting an additional panel to make the total panel thickness 16 mm. trapping the additional panel behind the door's beading. Substantial, solid doors unable to afford the loss of 10 mm to the frame can achieve 20 minutes with the 30 min spec as below provided they can afford the loss of 4 mm .

Oak and Other Resistant Hardwoods including modern doors with solid compressed cores and 6mm oak veneer faces .

These doors with frames 35 mm + thick can be upgraded to 30 minutes. Any inset panel less than 12 mm thick should be supplemented by an additional panel trapped by the door's beading to take overall panel thickness to 12 mm +.

Door Surrounds & Seals

We recommend the gap or joint between the architrave and wall is sealed with

Intumescent mastic after application of Fire Varnish & FV Overcoat , so your order should include for intumescent mastic

We also recommend that intumescent strips are fitted in the door jambs and to the underside of the door .

Specifications & Order Quantities

30 Minutes Fire Resistance Specification (20 minutes in case of some softwood doors as referred to above)

3 coats Thermoguard Fire Varnish @ 7 sq m / litre per coat

2 coats Fire Varnish Overcoat – matt , satin or gloss

COVERAGES 30 / 20 minutes (as above) allows for the number of coats necessary

20sq m pack Fire Varnish = 1 ½ doors & surrounds

PLUS

20 sq mt. Fire Varnish Overcoat = 3 doors & surrounds , 80 sq m = 12 doors & surrounds

PLUS 1 tube Intumescent Mastic (2 tubes for wider gaps)