

## **UPGRADING INTERNAL DOORS TO HALF HOUR FIRE RESISTANCE**

We are often asked to help upgrade internal doors to Fire Doors, which is not the normal or intended application for Intumescent Coatings, which are designed to control "Surface Spread of Flame" and "Fire Propagation".

**For the vast majority of door types and construction, this conversion to a fire door cannot be achieved using fire protection paint or fire protection varnish.**

In consequence, **we recommend the purchase of fire doors**, which incorporate a fire resistant panel (a safe equivalent to asbestos) sandwiched between the two visible faces, as the door must be able to stop a fire passing through it, remain rigid and resist the passage of heat through it during a fire. Most modern doors have either panels which are significantly thinner than the door (and hence liable to collapse prematurely) and/or made of timber prone to warp or split, leaving a gap for fire to pass through around the door. Even solid timber "stable" doors are liable to this last problem. Solid, heavy historic doors can be marginally better but no guarantees can be given even when they are seasoned and of solid construction, having not been constructed with a view to resisting the forces a fire can impart.

**For those unable to change the doors**, perhaps for conservation reasons, the best we can offer is the following:-

By means of our Indicative, One Hour Non-Load bearing Test on a structural timber floor, we have data that can demonstrate that solid timber surfaces lost less than 10mm of timber to charring, when protected with Timbercoat Paint applied at 1.75 m2 per litre, followed by our Flame Retardant Paint. **This also achieves Class "O" Spread of Flame**

With a clear finish, **no independent testing** evidence exists for "**Fire Resistance**". We can only offer **Class O** and approx. **10 minutes** delay to timber charring applying Fire Varnish at 4 m2 per litre plus 2 coats of Fire Varnish Overcoat.

**Only in the event that the responsible authority for your area accept this as evidence, and in addition that the door's construction is not likely to break down or twist and that the residual timber will be adequate to resist the passage of fire, can we potentially assist you.**

In the event you obtain their acceptance, we will be pleased to supply the required materials.

**Please note that we will not be able to issue a Fire Certificate for the doors.**

There is one supplier known to give the impression that their products can upgrade doors. In order to avoid expensive "misunderstandings" we would recommend that customers ask for a copy of their "**Fire Test Report**" and a specific, written recommendation to ensure it is in any way relevant to their door(s) prior to ordering.