

## ***Property Repair Systems***

**Unit 3, Olympus Business Park  
Kingsteignton Road  
Newton Abbot  
Devon  
TQ12 2SN**

***Tel: 01626 331351  
Fax: 01626 331143***

### **Upgrading Doors to 30 Minutes Fire Resistance**

How to avoid wasting sound, solid timber doors that are at least 35mm thick.

**Important** – essential notes – please read before purchasing products

Please refer this explanation, as part of your Specification for the door upgrade, to the Building Inspector or other Authority that is asking you to fit Fire Doors. This will help them to decide if they will allow you to upgrade the type of door that is currently installed using our Thermoguard Fire Paint or Fire Varnish.

Do not purchase Fire Paint or Fire Varnish without first obtaining written permission from your Building Inspector or Fire Officer. These paints and varnishes are NOT certificated for your doors, but it is a concession that many Authorities will allow upgrading in order to save valuable doors, rather than force you to fit modern, Factory produced fully tested doors.

### **Background**

Due to the hugely varying nature of doors and their construction, it is impractical and misleading to carry out NAMAS/UKAS Laboratory fire door testing, because each individual door would have to be assessed on its own merits. The cost of such testing is uneconomic, because of the vast number of door variables.

A lot of doors, including ALL hollow doors, are unsuitable for upgrading to 30, or even 20 mins Fire Resistance. There are however, certain well constructed, solid and substantial doors capable of being upgraded with our Thermoguard Intumescent Fire Paint or Intumescent Fire Varnish, as these are by far the most effective Fire treatment coatings available today.

Generally, suitable doors will be solid hardwood, solid softwood, or solid softwood/man made board with a hardwood veneer.

Our Fire Class 'O' Part 6 Fire Propagation Test showed that protected softwood did not burn within the 10 minutes test duration. Further in-house testing indicated that when applied at twice the Class 'O' specified coating thickness, our Intumescent Fire coating added a further 15 minutes of Fire Resistance.

We assess door upgrade jobs requiring 30 minutes of Fire Resistance on an individual basis, referring to the above, TRADA Char Rate Tables and calculated residual timber to ascertain whether we can issue a Fire Certificate for the project. This requires the Customer to provide us with the door information – there is no Site inspection, although this is available for a fee.

## **SOFTWOOD DOORS**

In order to issue a 30 mins Fire Certificate, in the case of softwood, the doors must have a minimum thickness of 10mm in panelled areas, with at least 35mm of timber thickness in the rest of the door. We cannot Certificate Ledge and Brace doors (farmhouse type) because they will twist in fire and break the seal at the frame edges.

In other words, the timber should be adequate to avoid premature collapse, splitting or cracking, ensuring that neither flames nor the substantial heat required to sustain combustion can pass through the door or at the frame junction.

In general terms, cheap, lightweight modern softwood doors cannot be protected. Old Pitch Pine & other very well seasoned softwood doors can be protected, but only if the structure of the door can withstand a 10mm loss. In these cases panels less than 10mm thick should be supplemented by inserting an additional panel to take the total panel thickness to 10mm, trapping the additional panel behind the door's beading.

## **OAK & OTHER RESISTANT HARDWOOD DOORS**

In the case of oak or similar timbers, the required loss from charring to take into account is 6 mm.

These types, including modern oak-faced doors with solid compressed core, with frames at least 35mm thick, can be upgraded to 30 minutes. Any inset

panel less than 8mm thick should be supplemented by an additional panel, trapped by the door's beading, to take overall panel thickness to 8mm.

### **WHICH SIDE TO PROTECT?**

Generally, the room side of doors should be coated, to protect the corridor and stairwell coming from potential fire from the room. Where it is felt the doors should have some protection on the corridor side, in order to avoid the doors themselves creating a fire hazard, a sensible approach, adopted by some Authorities, is to have the doors treated to Fire Class 'O' standard, thus complying with flame spread and fire propagation standards for general surfaces within corridors, stairways and other "means of escape". If a door divides a corridor, or divides a corridor from a stairwell, it should be treated to the full 30 Minutes specification on both sides.

### **30 Mins Fire Resistance Specification**

3 coats of Intumescent Fire **Varnish** at 6.5 sq.m/litre, per coat

plus

2 coats of Fire **Varnish** Overcoat at 10 sq.m/litre, per coat

or

3 coats of Intumescent Fire **Paint** at 7 sq.m/litre, per coat

plus

2 coats of Fire **Paint** Overcoat at 10 sq.m/litre, per coat

### **EXAMPLE OF APPROXIMATE COVERAGES**

A 20sq.m pack of Intumescent Fire **Varnish** will cover 4 typical door sides, including door edges.

A 2 litre can of Fire **Varnish** Overcoat will cover 6 door sides, including door edges.

A 1.9 litre (2.5kg) pack of Intumescent Timbercoat Paint will cover 3 typical door sides, including door edges, for 3 coats.

A 2.5 litre can of Flame Paint will cover 8 door sides, including door edges, for 2 coats.

## **BEFORE PLACING AN ORDER**

1. Send all our literature and Specification to your Building Inspector for written approval
2. Complete the attached "Thermoguard Upgrade Approved" Form and E Mail it back to us with your Specification
3. Call us to confirm your payment and delivery details
4. Important – because Building Inspectors can refuse to accept this type of upgrade we will not risk supplying Fire Paints or Varnishes unless we have received your "Thermoguard Upgrade Approved" Form. This is to protect you from wasting your time and money, so please do not rush into a purchase and bypass these precautions.

If you apply any of our Thermoguard products without having supplied us with the "Thermoguard Upgrade Approved" Form we will not be liable for the outcome and will not refund the cost under any circumstances.

Checklist for your submission to your Building Inspector:

1. This letter
2. The Product Data Sheets for the chosen paints or varnishes
3. A Specimen of our Fire Certificate of Supply

For help with Specifications, Data Sheets and to place an Order contact:

**Property Repair Systems, Unit 3 Olympus Business Park, Kingsteignton Road, Newton Abbot, Devon TQ12 2SN**

Tel: 01626 331351 Fax: 01626 331143

E Mail: [help@propertyrepairsystems.co.uk](mailto:help@propertyrepairsystems.co.uk)