

## **SPECIFICATION AND GUIDANCE FOR FIRE RESISTING DOORS**

All references to "fire resisting" (in relation to doors) to be taken as meaning: having a fire resistance of not less than 30 minutes when tested in accordance with British Standard BS 476: Part 22:1987 (or equivalent European Standard). Glazing in any fire resisting door, wall, partition or screen should comply with British Standard Published Document PD6512: Part 3:1987. If existing doors are to be upgraded then specific advice must be sought prior to doing any work.

It is recommended that purpose made door sets which meet the 30 minute fire resisting standard be fitted. For difficult/non standard door openings blanks can be purchased and cut down. In most cases standard fire doors can be adjusted to fit normal door opening sizes.

### **Hinges**

All fire doors must be hung on three steel hinges, to resist bowing in the event of a fire and to bear the increased weight of the door.

### **Self closing devices**

Fire resisting doors must be fitted with external dual action hydraulic type self closing devices which are adjusted to close quickly but latch slowly so as not to wear the smoke seals or damage the door or frame. Perco-type closers are not suitable as they cause the doors to slam causing noise nuisance to occupiers and they tend to wear the smoke seals/frames causing damage over a period of time. Self closers are to be attached using appropriate fixings ('snake eye screws') which are designed to prevent removal/tampering by tenants.

### **Door stops and fitting**

Door frames may be improved to have 25mm door stops which the doors close onto. The benefit of doing this is that it covers minor irregularities of fit, often found when working on existing door openings. Alternatively, if purpose made doors are used which have integral intumescent strips then standard door stops can remain.

On completion doors must be reasonably close fitting into frames with a maximum gap of 3mm between door and frame. If doors are too tight then the self closers do not work, there has to be a certain air gap around the door. In addition, heavy fire doors may drop by a millimetre or 2 over time and so tight fitting doors will stop closing and need to be adjusted. A note of warning - hang the door first, then fix the stops, not the other way round.

### **Smoke seals/Intumescent strips**

Smoke seals must be fitted to all fire doors. This specification is for a "night time escape" standard and so smoke seals are important to enable occupiers to escape down the protected route without being subjected to smoke which can be toxic, impede breathing and affect vision. Cool smoke, often given off by smouldering furnishings and electrical equipment, is exceptionally toxic and tends not to rise, therefore smoke seals on fire doors are essential. Nylon brush or neoprene smoke seals (draught proofing kits) are acceptable. Smoke seals can be fitted into the door itself or, a better option is to apply to the door stop so that the fire door closes onto the seals. See diagram.

Intumescent strips are materials which, when subjected to heat, swell up and close the gaps between door and frame. Intumescent filling materials are useful for filling holes, voids etc where pipework has been run through wall or ceilings etc. Fire door performance and integrity depends on the installation of such strips which can be fixed into a channel in the door or fitted to the frame. New doors and frames may come with these factory fitted, it is useful to choose this option as it saves work on site and ensures the doors/frames perform to the British Standard. In this case smoke seals must be fitted independently as detailed above. When existing doors are not fitted with intumescent strips but do have 25mm door stops the requirement is only for smoke seals to be fitted.

In the event of a fire, the intumescent strips ensure a door retains fire resisting properties and holds back the blaze while occupiers escape.

### **Door furniture**

Door handles must give security but do not allow tenants to be locked out of their lettings by the action of the self closers. For this reason, the best design is a simple mortice lock and door handles which require a key to lock the door, but the inside has a thumb turn instead of a key. This means that the occupant can escape from the room in an emergency without relying on a key. A Rim lock with a rollerball is also acceptable. Note fixing instructions for the roller ball lock.

All final exit doors must also have this type of lock or a simple latch lock which allows exit without using a key in the event of an emergency. Care must be taken when installing any additional security locks to final exit doors, so that this requirement is not overridden and by doing so, occupiers are locked into the house if a fire breaks out.

This lock standard applies to all bedroom/bed-sit doors and final exit doors, including doors onto any secondary fire escape stairs.

**Briton 2003**; Market leading door closer. Fixed strength size 3. Separate latch action and closing speed. Low tac template for quick, easy installation. CE marked and Certifire CF111. EN1154. EN 1634 fire test (up to 2hrs).



**Thumb turn 35mm** for use with Eurocylinder lock for keyless locking on the inside of a door, preferred by Fire Officers. For use with aluminium door furniture, also in brass.



**YALE 81 ROLLERBALL DEADLOCK NIGHTLATCH**

YALE Cylinder operated rollerbolt; 5 pin brass or satin chrome finish cylinder. Case Dark Metallic Grey. Supplied with 2 keys; 20,000 key differs. The roller catch operates on a push/pull action, and becomes an extended throw deadbolt which can be locked or unlocked from either side. To throw the bolt either a clockwise turn of the handle inside, or an anti-clockwise turn of the key outside is required. Door thickness 32mm - 57mm.



**NOTE – IT IS IMPERATIVE** THAT FIXING INSTRUCTIONS FOR THIS LOCK ARE FOLLOWED ACCURATELY AND THAT THE CLEARANCE BETWEEN THE LATCH AND THE KEEP ALLWS FOR THE ROLLERBOLT TO MOVE FREELY AND OPEN AND CLOSE. TOO TIGHT AND IT WILL NOT OPERATE, DOOR WILL STICK SHUT.

**UNION MORTICE NIGHTLATCH  
(UN2332)**

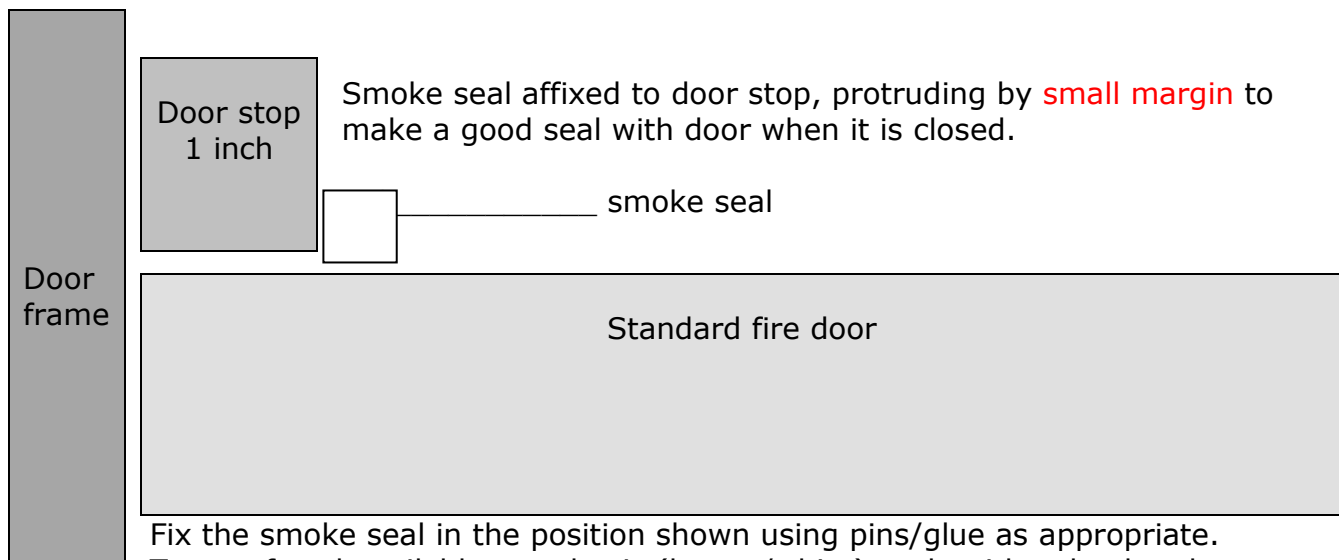
Latchbolt is withdrawn by single oval profile cylinder (included) from outside and turn knob inside. Latch can be held in withdrawn position by snib in the forend. (Can also be operated by key from either side using double cylinder\*) Standard cylinder length as supplied is suitable for door up to 48mm thick.(For doors in excess of this thickness, order correct cylinder) Reversible latchbolt. Available 64mm or 76mm case depth. Brass(BR) or Satin Chrome(SC) cylinder and/or forend. Supplied with 3 keys.



## POSITIONING OF COOL SMOKE SEALS TO FIRE DOORS

Smoke seals are designed to stop toxic smoke getting from one room (usually a risk room) into the escape route. One effective option to fit them is to affix to the door stop itself so that the fire door closes onto the smoke seal. This is simpler than routing a channel into the door itself and has the advantage of reducing the wear and tear on the seals themselves, so they perform consistently and last for many years.

Smoke seals for this method of fixing should be purchased as draught proofing door sets, rather than the long strips which are designed to be installed in a channel in the doors.



Fix the smoke seal in the position shown using pins/glue as appropriate. Types of seal available are plastic (brown/white) seals with nylon brush or a neoprene tube. Alternatively aluminium seals with nylon brush is good and very hard wearing.