

Appendix to Clause 3.15.1(b)

## **NOTES ON THE USE OF INTUMESCENT PAINTS FOR PROTECTION TO STRUCTURAL STEEL MEMBERS OF BUILDINGS.**

### **Scope**

1. Intumescent paint is allowed to be used to protect the structural steel members of buildings. In buildings under Purpose Groups VI & VIII, where there may be presence of corrosive atmosphere that may affect the effectiveness of intumescent paints for protection to structural steel members of buildings, such proposal shall be subjected to evaluation of the Relevant Authority.

### **Standards**

2. The Intumescent paint shall be subjected to the fire resistance test as detailed in BS 476 Pt 20/21 or its equivalent.
3. The Intumescent paint shall also be subjected to weathering tests as detailed in BS 8202: Pt 2: 1992. Fire test for fire resistance performance shall be conducted on the specimens after the weather tests. The fire resistance rating of the tested specimen shall not be less than 75% of the original prototype.
4. The intumescent paint shall be listed under the Product Listing Scheme, administered by certification bodies accredited by Singapore Accreditation Counsel.

### **Plan Submission**

5. The project QP shall submit a separate set of plans indicating the locations of the structural steel members that are/will be coated with intumescent paint.
6. If the building exceeds 24m in habitable height, a fire safety report shall be submitted together with the plan.

### **Signage**

7. A signage depicting the following minimum information shall be fixed at a conspicuous location:
  - (a) Name of supplier
  - (b) Fire resistance rating of the intumescent paint
  - (c) Date of painting
  - (d) Expected date of re-painting.
  - (e) Caution note: “Caution: No other paint/coating shall be applied to the surfaces of the structural steel members protected by the intumescent paint system”

## Inspection and Maintenance

8. The Fire Safety Manager, if any, shall carry out regular inspection checks to ensure that the intumescent paint coatings are not damaged or tampered with. Records of inspection shall be properly kept.
9. Annual renewal of the Fire Certificate, where applicable, shall also include the inspection of the columns and beams coated with intumescent paint. The inspection shall be carried out by a QP.
10. For addition/alteration works in a building where structural steel members are protected by intumescent paint, the following requirements must be complied with:
  - (a) The owner or tenant, assisted by the FSM, shall engage a QP who shall submit building plans to SCDF. The building plans shall be accompanied by the QP's declaration as to whether the existing columns beams coated with intumescent paint are/will be affected.
  - (b) Certificate of Registered Inspector Inspection shall be required.
  - (c) The fire safety report shall be updated accordingly.
11. There shall be no highly flammable/combustible materials stored within the vicinity of any structural steel members protected by intumescent paint.