

IC 11-00 INTUMESCENT / IC 11-01 INTUMESCENT (FD)

Solvent-based intumescent coatings

Product description

IC 11-00 Intumescent and IC 11-01 Intumescent are single component intumescent coatings for passive fire protection of structural steel. They have the following main properties:

- Provide up to 120 minutes protection from cellulosic fires
- Certified according to European Standard EN 13381-8 for metal structures
- Certified according to European Standard EN 13501-1 for wood fireproofing
- Can be applied onto both internal and external steelwork (with a suitable approved topcoat)
- IC 11-00 and IC 11-01(FD) is faster drying than IC 11-00. Both products are identical when dry
- CE Marking product.

Intended uses

Passive cellulosic fire protection of metallic structures.

Properties

Finish: Matt
Colour: White
Components: 1
Specific weight: 1,34 ± 0,02 g/ml
Solids by volume: 75 % (ISO 3233)
 Slight variations (± 3%) may occur due to testing variances.

Dry film thickness (per coat): IC 11-00: 200–1500 µm
 IC 11-01(FD): 200–1000 µm

Maximum dry film thickness per coat depends on application method:

	IC 11-00	IC11-01(FD)
Airless spray	1500 µm	1000 µm
Brush	400 µm	400 µm
Roller	250 µm	250 µm

The recommended final dry film thickness depends on the section factor of the steel profile, the desired fire resistance time period and the critical failure temperature. For more detailed information, please consult the official product resistance loading tables.

Number of coats: Depends on the dry film thickness required for the degree of fire protection and the application process.

Application method: Airless or conventional spray, brush and roller.

Theoretical coverage: 3,75 m²/L at 200 µm
 1,00 m²/L at 750 µm
 0,50 m²/L at 1500 µm
 Allow for application losses, surface irregularities, etc.

Drying times and overcoating:

At 20 °C

IC 11-00

	200 µm	750 µm
To touch	45 min	60 min
To handle	4 h	24 h
To recoat (with itself)	Min. 4 h Max. extended ^{a)}	Min. 6 h Max. extended ^{a)}

IC 11-01(FD)

	200 µm	750 µm
To touch	30 min	45 min
To handle	3 h	16 h
To recoat (with itself)	Min. 3 h Max. extended ^{a)}	Min. 4 h Max. extended ^{a)}

All figures above are given as a guide only, practical drying times will depend on factors such as temperature, humidity, air flow and film thickness.

Overcoating with topcoats at 20 °C

Dry film thickness up to 750 µm.

Topcoat	IC 11-00	IC 11-01 FD
REM AK OC	Min. 24 h Max. extended ^{a)}	Min. 4 h Max. extended ^{a)}
Remoplast UVC PL HS ES	Min. 48 h Max. extended ^{a)}	Min. 24 h Max. extended ^{a)}

^{a)} The previous coat must be free of contaminants, adherent and cohesive.

Paint systems

Primers: REM 61 Primer, Remoplast Speed Dry, Remoplast MSR Ultraprimer

Topcoats: REM AK OC or Remoplast UVC PL HS ES. All Rembrandtin recommended topcoats have a minimum fire classification of B-s1, d0.

For steel structures exposed externally or internal but with high humidity levels or condensation, a minimum of 2 coats of an approved polyurethane topcoat, with a minimum total dry film thickness of 120 µm, must be applied before the intumescent coating is exposed to such conditions.

As for many intumescent coatings of this type, contact with water may alter its properties. For outdoor environments or indoor environments with high humidity levels or condensation, it is necessary to define and apply a maintenance plan to check the integrity of the paint system. In such environments, it is essential that the paint system is not subjected to ponding or pooling water at any time.

Maintenance: for the painting of structures already painted, the existing system should be completely removed and primed again (please, see recommended paint systems), or, in case it was not possible, it should be sanded before applying the intumescent paint.

Surface preparation

The performance of the protective painting system is proportional to surface preparation. Before intumescent coatings application, please ensure that the selected primer is well adhered, clean, dry and free from any surface contamination.

Application

In confined areas ventilate with clean air. During application and drying until solvents are removed.

Room and drying application conditions:

Temperature: IC 11-00 5–45°C
 IC 11-01 FD 5–25°C
 Relative humidity: <85%
 Minimum surface temperature: 3°C above the dew point

Application Equipment:

Airless spray: Recommended
 Fluid tip orifice size: 0,019–0,025 inches (0,48–0,64 mm)
 Fluid pump: Min 45:1
 Fluid pressure: 160–180 kg/cm²
 Thinning: 0–5 %

Conventional spray: Recommended
 Fluid tip orifice size: 0,086–0,125 inches (2,18–3,17 mm)
 Air pressure: 3,1–5,3 kg/cm²
 Fluid pressure: 2,0–2,5 kg/cm²
 Thinning: 5–10%

Brush

Thinning: 0–5%

Roller

Thinning: 5–10%

Thinning: Thinner 87052

Approvals and certificates

Fire Resistance:

IC 11-00 and IC 11-01(FD) have been tested according to EN13381-8 for resistance to cellulosic fires for up to 120 minutes.

Reaction to fire:

IC 11-00 and IC 11-01 (FD) show class C-s2, d0 for the reaction to fire, according to EN 13501-1 for metal structures.

CE Marking

CE Marking of this product is the evidence given by the producer that this product is subject to the provisions of Community Directives of the Construction Products that are applicable with European

Regulation nr. 305/2011 on March, 9 of 2011 and the EAD 350402-00-1106 Guide "Reactive paints for fire protection of steel elements."

This product conforms to the requirements of the EAD 350402-00-1106 Guide and it has the Declaration of Performance made from ETA 19/0208 by Instituto de Ciencias de la Construcción E. Torroja.

Additional information

Curing mechanism – By solvent release ^{b)}

^{b)} The drying process of a product is strongly influenced by room conditions. Solvent retention can occur when a high film thickness per coat is applied, normally at high temperatures, strong winds or directly in sunlight exposure conditions. In this case, Rembrandtin recommend the application of a lower film thickness per coat up to a maximum of 750 µm dry film thickness, or the equivalent of 1000 µm wet film thickness.

Volatile Organic Compounds (VOC)

EU limit for this product (cat. A/i): 500 g/L

These products contain:

- IC 11-00: max. 396 g/L COV (TVOCC: 31%)
- IC 11-01(FD): max. 395 g/L (TVOCC: 31%)*

Supplying form: < 348 g/L (TVOC: < 26%)

*The VOC value shown above refers to a ready for use product, as tinted, thinned, etc in accordance with our recommendations. We are not responsible for products obtained by mixing products which are different from those we have recommended and we must draw attention to the responsibility of anyone involved within the supply chain not to infringe Directive 2004/12/CE.

Flash point

	IC 11-00	IC 11-01(FD)
Product	29°C	4°C

Packaging

Product	25 kg
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Storage

2 years when stored indoors in original containers at 5 to 40°C.

Health, safety and the environment

Protect the eyes and skin from contact, gloves, goggles and appropriate clothing should be worn. Keep out of the reach of children. Use only in well ventilated areas. Do not empty into drains. Keep the container properly sealed and stored in the correct place. Take correct measures when transporting the product so as to avoid any accidents that could rupture the can or cause damage to the packaging. Ensure that the container is correctly stacked in a safe area. Do not store or use the product in extreme temperature conditions. Always take account of the appropriate legislation relating to the environmental and Health and Safety at Work. **For more information it is essential to read the label on the container and the product MATERIAL SAFETY DATA SHEET of this product, its components and all complementary products referred on Technical Data Sheet.**

Disclaimer

We recommend that the technical data sheet is periodically checked to ensure that it is the most recent version. Rembrandtin guarantees that its products conform to the specifications as detailed in the respective technical data sheets. Rembrandtin cannot under any circumstances be held responsible for the consequences of technical information given prior to or after purchase of products. This is merely of an advisory nature, given in good faith and to the best of its knowledge, and based on current technical know-how. Claims can only be accepted for products which have manufacturing defects or which do not conform to the purchase order. Rembrandtin will, at its discretion, either replace the defective goods or reimburse the customer. Rembrandtin cannot accept responsibility for any other loss or damage. All sales are subject to our general terms and conditions of sales that we advise should be read carefully.

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