



Technical Data Sheet

Isover Protect Service Coat

General Product Description

Isover Protect Service Coat is an acrylic based intumescent coating designed to increase the fire resistance of fire seals and protect cables, cable trays and metal pipes. The coating protects the cables outer plastic or rubber sheath, and thereby protects the conductors to secure continued electrical supply in a fire situation. The product also protects and lowers temperatures in metal services passing through a fire seal, thereby increasing the overall fire resistance.

The coating is non-toxic, emission free, durable and can be applied in a thin coat, saving both time and money. It is a hardwearing coat, formulated to the highest specification and offering unsurpassed intensity of colour. The coating can be tinted; all colours are water-based and provide a smooth, rich and non-reflective finish. Isover Protect Service Coat normally requires no primer and no top coat. The product also has the added benefit of being easy to use and very easy to clean up.

Properties & Precautions

- A high performance, fire resistant coating, designed to be applied as a thin film on services protecting cables, cable trays and metal pipes in a fire.
- Available either in a white base or in a range of colours, easily and quickly mixed via our in-house colour tinting machine.
- Once a protective topcoat has been applied, Isover Protect Service Coat can be used in exterior applications.
- Non-toxic and emission free, with near zero volatile organic compounds (VOCs) and best possible emission classifications available, makes the coating perfect for anyone wishing to avoid breathing in toxic chemicals. Especially beneficial for people suffering from asthma, allergies or any other breathing related diseases.
- Durable, robust and designed to last; can be cleaned with a damp cloth without the risk of washing off the coating.
- Achieve excellent coverage with a spray applied thin coat system (the most cost effective option), saving paint and application time. Brush and roller applications can also be performed, often in only a few coats. Topcoat is normally not necessary.

- Suitable for most surfaces, including rubber, plastics, concrete, bricks, masonry, primed steel, wood, gypsum and most non-porous surfaces, in most cases without a primer.
- Halogen free with added preservatives that resist bacterial and fungal growth, providing extra protection to health in addition to the non-harmful emissions. The product also protects the underlying substrates.
- The coating's durability is expected to be at least 12 years, making it a cost effective option in comparison to normal paints with limited durability.
- The coating is not intended for application on bituminous substrates or substrates that can exude certain oils and plasticizers or solvents. This product is not recommended for use in constant humid areas without a topcoat.
- Please do not apply in very damp or humid conditions, or extreme temperatures.

Application

Prepare

Before coating ensure the surface to be painted is clean, dry and free from grease, dirt, dust, and other contaminants. Remove any old or flaking paint until you have a sound surface; if in doubt remove all existing coatings.

Roller/Brush

The coating can be applied by brush or roller to the required loading. If desired the coating can be diluted by up to 10% (by volume), but 5% is typical. If diluted the WFT loading should be increased by the amount the coating was diluted. For example, if the fire protection loading was 1,300 μ and the coating was diluted by 5%, the loading that now needs to be applied is 1,370 μ . Alternatively, to ensure the correct loading has been applied simply apply all of the Isover Protect Service Coat specified to coat a given area regardless of how much it was diluted. Remove excess coating from the brush or roller on the rim of the paint pot and then wash brush/roller with water.

Spray

The coating can be applied using spray equipment, for example, the Graco X-Force Spray Gun with a tip size 17-21thou. The coating can also be diluted for spraying but the fire protection loading would need to be adjusted as described above.

| Description | Usage | Fire resistance |
|--|---|--|
| Isover Protect Service Coat @ 900μ DFT on cables | Minimum 1,284 μ WFT (or 1.284 litres per m ²) | 105 minutes (90 minute flame plus 15 minute cool down) |

When tested in accordance with the procedures specified in IEC 60331-21 and -11 at a rated voltage of 750 V-rms, the coated cable maintained its circuit integrity for the full test duration which satisfy the performance requirement recommended in the standard.

Exterior Use & Top-Coat

Isover Protect Service Coat can be top-coated for exterior use. The best weather resistance is provided by 2K PU (polyurethane) paints such as: Jotun Hardtop XP, Temadur 50, Acrolon 7300.

Single pack solvent based exterior paints can also be used, such as: Dulux Weathershield Exterior Wood and Metal High Gloss, Sandtex 10 Year Exterior Gloss.

Colours

Isover Protect Service Coat is available either in a white base or in a range of colours mixed via our in-house colour tinting machine. White base can be used as white or as base in many colour tinting machines, including but not limited to Hero.

Please refer to our Colour Chart to see the range of in-house colours available.

Emission Data (Indoor Air Quality)

| Compound | Emission rate after 3 days | Emission rate after 4 weeks |
|-------------------------|----------------------------|-----------------------------|
| TVOC | 0.22 mg/m ³ | < 0.005 mg/m ³ |
| TSVOC | < 0.005 mg/m ³ | < 0.005 mg/m ³ |
| R-value (dimensionless) | 0.38 | 0 |
| Sum w/o NIK | < 0.005 mg/m ³ | < 0.005 mg/m ³ |
| Formaldehyde | < 0.003 mg/m ³ | < 0.003 mg/m ³ |
| Total carcinogens | < 0.001 mg/m ³ | < 0.001 mg/m ³ |
| Acetaldehyde | 0.003 mg/m ³ | < 0.003 mg/m ³ |
| Propionaldehyde | < 0.003 mg/m ³ | < 0.003 mg/m ³ |
| Butyraldehyde | < 0.003 mg/m ³ | < 0.003 mg/m ³ |

| Regulation or Protocol | Conclusion |
|--------------------------|------------|
| French VOC Regulation | A+ |
| French CMR components | Pass |
| AgBB | Pass |
| Belgian Regulation | Pass |
| Indoor Air Comfort® | Pass |
| Indoor Air Comfort GOLD® | Pass |
| EN 717-1§ | E1 |
| BREEAM International | Compliant |
| BREEAM-NOR | Pass |
| LEED v4 (outside U.S.) | Compliant |

Technical Data

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|---------------------------------|--|
| Type | Acrylic based intumescent coating |
| Cure system | Water loss |
| Health and safety | Non-hazardous |
| Tests standards | International Electrotechnical Commission 60331 and EuroNorm 1366 |
| Classification standards | EN 13501-1 and Regulation (EU) 2016/364 |
| Reaction to fire | B-s1,d0 |
| Colour | White base, matt |
| Specific gravity | 1,4g/cm |
| Solids (theoretical) | 70.1 % |
| VOC | 0.0001 g/L |
| Touch dry | 1 hour at -22°C & 50 % RH * |
| Hard dry | 1,5 hour at -22°C & 50 % RH * |
| Application conditions | Minimum +10°C and humidity lower than 80% |
| Temperature range | -30°C to +80°C (when hardened) |
| Durability | Without topcoat: Type Z ₂ internal conditions with humidity lower than 85 % R.H, excluding temperatures below 0°C. With topcoat: According to the chosen product |
| Shelf life | Up to 6 months when stored in cool dry well ventilated areas between +10 to +30 °C, with optimum of +20 to +25 °C |
| Work life | 12 years |
| Packaging | Isover Protect Service Coat 3 litres: 100 buckets per pallet |

Health and Safety

Keep container tightly closed when not in use. Avoid contact with eyes and skin. Eyes and skin should be rinsed immediately with cold water. Dispose of contents and container in accordance with local, regional, national or international regulations. Contains 1,2-Benzisothiazolin-3-one. May produce an allergic reaction. Keep out of reach of children. More detailed information can be found in the relevant Isover Protect Safety Data Sheet.

Test Standards

This Technical Data Sheet and the Installation Instructions are based on the product's ETA issued in accordance with regulation (EU) No 305/2011 on the basis of EAD 350454-00-1104, September 2017, tested to EN 1366-3 in conjunction with EN 1363-1. The product hold the following approval marks; CE-mark for Europe.

Quality Assurance

As a part of our policy of on-going product development and testing, we reserve the right to modify, alter or change product specifications without giving notice. All information contained in this document is given in good faith and is provided for guidance only. Any drawings provided are for illustrative purposes only.

As Saint-Gobain Isover has no control over the methods or competence of installation and of prevailing site conditions, no warranties, expressed or implied, are intended to be given as to the actual performance of the product mentioned or referred to herein and no liability whatsoever will be accepted for any loss, damage or injury arising from the use of the information given.



Technical data sheet to ETA 24/0370