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|----------------------|--|-----|------|
| CI/SfB               |  | Yu4 | (K2) |
| CAW G12              |  |     |      |
| Uniclass JM61:L68116 |  |     |      |

## Product Information

### Description

S605 Intumescent Basecoat is a single pack solvent-based intumescent coating for fire protection of both internal and external structural steelwork. S605 is very pale green in colour.

### Usage / Purpose

S605 provides effective structural fire protection, for steelwork, from 60 minutes up to a 120 minute fire rating. Suitable for universal and hollow sections.

### Finish

For long term durability and external use, a top seal is required.

### Colour

Pale green

### Packaging

Supplied in 25 kg drums

### Environmental Considerations

See safety data sheet for full information.

### Availability

Only available direct from Nullifire (see back of leaflet for address and telephone details).

## Usage Guidelines

### Surface Preparation & Priming

- S605 should be applied onto a clean, undamaged, dry and suitably primed steel surface. Certain types of primers, particularly thermoplastic primers, can cause adhesion problems and should be avoided.
- Nullifire recommend and have tested PM015, PM018, PM019, PM020 and PM021 primers- see website for details.
- Nullifire have carried out compatibility testing on a wide range of primers and can be contacted on +44 (0)24 7685 5000 for confirmation of compatibility with S605.
- Galvanized surfaces should be prepared by an application of T-wash or mordant solution followed by a compatible primer. The primer should be applied in accordance with the manufacturer's instructions.

- If a zinc rich primer is used, it is advisable to seal this with a suitable tie coat or travel coat prior to shipment to site. If the steel is left exposed to the atmosphere with just a zinc rich primer, surface salts may build up on the steel. These salts, if not adequately removed, may cause adhesion problems for any subsequent coating applied. Removal of the salts can be achieved by high-pressure washing. If adequate removal of the salts cannot be guaranteed, a suitable tie coat may have to be applied prior to the S605.
- Nullifire should be consulted for technical advice when zinc rich primers and overcoating of existing paints are specified for use.

### Application Conditions

- S605 is recommended for application and use on dry protected structural steel only.
- If the basecoat is allowed to get wet, it is likely to be damaged – blistering and wrinkling may occur.
- S605 should only be applied when the air and steel temperatures are above 5°C and below 35°C. Relative humidity should be below 80% for successful application. Steel surface temperature should be a minimum of 3°C above the dew point.
- Ensure the steel is dry and free from contact with rain or condensation during the application and drying of S605.
- Please note that rain may cause surface patterning if the material has not formed a skin. Heavy rain or water running over the surface can damage recently applied (6- 8 hours) coating and hence it should be protected if this is a potential risk.

### Application Equipment

Airless spray equipment is recommended and should match these guidelines:

Operating Pressure: Min 3500psi (250 kg/cm<sup>2</sup>)

Tip Size: 19 – 23 thou

Fan Angle: 20° – 40°

Hose Diameter: 10 mm (3/8") (internal diameter)

Hose Length: Max. 60 metres.

Inline filters should not normally be used.

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Smart Protection

# S605

## Intumescent Basecoat

**Durable, Solvent-Based**



### Key Benefits Summary

- Can provide up to 120 minute fire protection in some applications
- Proven history of successful usage in projects all over the world
- Compatible with a full range of Nullifire primers and top seals providing an outstanding finish.
- Suitable for on-site and off-site application.



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### Mixing

S605 is supplied ready for use and must not be thinned but should be thoroughly mechanically stirred prior to use.

### Application

#### AIRLESS SPRAYING

- S605 may be applied up to a maximum wet film thickness (WFT) of 1.1 mm in a single spray coat comprising of several quick passes. Achieving maximum loadings will depend on site conditions.
- Build up thickness to achieve loading required in several quick passes. It may be possible to apply two coats of S605 in one day particularly if the atmospheric temperature is above 20°C and relative humidity below 70%. However, before doing this, ensure that the previously applied coat is dry, particularly in the web/flange junctions.

#### BRUSH/ROLLER APPLICATION

- For brush application use a "laying on" technique to avoid heavy brush marking.
- Maximum wet film per coat when applied using a brush or roller is 1 mm. A short piled roller will produce a light textured finish.
- During application, measure the wet film thickness frequently with the WFT gauge provided to ensure the correct thickness is being applied.
- To use the gauge, insert the teeth into the wet basecoat. The last tooth to be coated indicates the wet film thickness achieved.
- In the event of over or under applications, adjustments to the loading rates of subsequent coats will be required.

### Drying Times

Drying of S605 is dependent upon a number of factors including:

- Temperature
- Air movement
- Humidity
- Method of application
- Thickness of coating

High humidity and low air movement or low steel temperatures can result in condensation on the steelwork causing prolonged drying times and possibly poor basecoat adhesion.

### Re-coat Times

- Heavy loadings may need longer when applying loadings in excess of 3000g/m<sup>2</sup> the drying times will be extended and depending on atmospheric conditions the time between basecoat and top seal may be up to 5 days for lower loadings or up to 15 days for maximum loadings.
- When high loadings are specified, it is preferable to apply a greater number of thinner coats (say 1000g/m<sup>2</sup>) allowing each to dry thoroughly before overcoating. This allows each individual coat to dry before overcoating and reduces the final drying time before topsealing can be carried out.
- Brush or roller application may add up to 20% extra to the drying times compared to spraying.

### Application Advice

The following instructions are for on-site application only. For off-site application, refer to Nullifire. Ensure that:

- The primer is compatible with S605 and has been applied correctly.
- The over coating period for the primer has not been exceeded.
- The correct primer is used for galvanised steel.
- All damage to the primer has been repaired & re-primed.
- Site and weather conditions are within specification.

- S605 has been stored correctly.
- Surface is clean, dry and free from contamination.
- Correct spray equipment is available, if appropriate.
- Application instructions have been read prior to commencement of work.
- Ensure different basecoats are not applied on the same section of steel.
- Equipment should be clean and free from contaminants or dried material. Wet film gauges are available for use.

### Cleaning

Pump, mixer and hose should be cleaned with an appropriate product such as Nullifire FC150.

### Top Seal Requirements

Once DFT's have been achieved as specified, a top seal, PM018, TS134 or TS815 can be applied. Ensure the S605 is completely dry before applying the top seal.

For long term durability and external use, a top seal is required.

### Maintenance & Repair

Damaged areas should be abraded back to a sound surface. The surface should then be clean and dry before re-applying. System S Filler may be used for repairing scratches and chips. Once repaired topseal should be re-applied. Refer to Nullifire System S Maintenance Instructions.

### Specification

A tremco illbruck Representative will provide a specification for each project. tremco illbruck accepts no responsibility for defects arising from failure to follow the specification.

### Health & Safety Precautions

Safety data sheet must be read and understood before use.



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### Technical Service

tremco illbruck has a team of experienced Technical Sales Representatives who provide assistance in the selection and specification of products. For more detailed information, service and advice, please call Customer Services on 01942 251400.

### Guarantee / Warranty

tremco illbruck products are manufactured to rigid standards of quality. Any product which has been applied (a) in accordance with tremco illbruck written instructions and (b) in any application recommended by tremco illbruck, but which is proved to be defective, will be replaced free of charge.

No liability can be accepted for the information provided in this leaflet although it is published in good faith and believed to be correct.

tremco illbruck Limited reserves the right to alter product specifications without prior notice, in line with Company policy of continuous development and improvement.

### Technical Data

| Property                           | Result                                                                  |
|------------------------------------|-------------------------------------------------------------------------|
| Composition                        | A solvent based, multi-coat formulation                                 |
| Certification                      | BS 476:Part 2 1987                                                      |
| Building Classification            | Up to C3 & C4 environments with suitable top coat                       |
| <b>Properties (Typical Values)</b> |                                                                         |
| Specific Gravity                   | 1.37 $\pm$ 0.02                                                         |
| Volume Solids                      | 68% $\pm$ 2%                                                            |
| VOC                                | 333 g/litre                                                             |
| Theoretical Coverage               | 730 g/m <sup>2</sup> based on an applied @ 0.5 mm dry film thickness    |
| Storage                            | Store in secure, dry warehouse conditions between +5°C and +35°C        |
| Shelf Life                         | 12- 15 months when stored as recommended in original unopened container |