

Technical Data Sheet

UPS 555 TB

Product Description

UPS 550 TB is a high build solvent fee low emissivity coating designed to reduce heat transfer from underlying metal surfaces thereby reducing heat loss and the risk of burns through personal contact. In addition, the coating provides long term protection of steel structures against corrosion and reduces the potential for condensation on cold pipework. *Operating temperature ranges from -20°C to 180°C (dry)*.

Typical Applications

Pipelines, tanks, process vessels and other land and marine structures.

Surface Preparation

Metallic Substrates

All oil and grease must be removed from the surface to be coated using an appropriate cleaner such as MEK.

For optimum results, the surface should be abrasive blasted to Swedish Standard SA2.5 and a minimum blast profile of 75 microns using an angular abrasive. Once blast cleaned, the surface must be degreased and cleaned using MEK and all prepared surfaces must be coated before rusting or oxidation occur.

NOTE: For salt contaminated surfaces the area must be abrasive blast cleaned as above and left 24hrs to allow any ingrained salts to come to the surface.

Properties

PropertyRatio

Value

5:1 by volume

Drying & Cure times at 20°C (68°F)

Useable life 90 mins

Movement Without
Load or Immersion
Light Loading 24 hrs
Full Loading / Water
Immersion
Chemical Contact 10 days

Performance Data

Density 0.57g/cc Volume Capacity 1754cc/kg



After this period the surface must be washed with MEK prior to brush blasting to remove the

surface salts. This process must be repeated until all ingrained salts have been sweated out of the surface and removed.

Where abrasive blast cleaning is not possible (excluding salt contaminated surfaces) the surface should be roughened by MBX, needle gun or grinding. Under these conditions adhesion levels will not be optimal although still satisfactory for most applications.



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Mixing and Application

Warm the base 15-20°C before mixing and DO NOT apply when the ambient or substrate temperature is less than 10°C or when the relative humidity is greater than 90%.

Transfer approximately one third of the contacts of the Activator unit into the Base container and mix carefully until incorporated. Add the remainder of the Activator and mix thoroughly until a uniform material free of any streaks is achieved. From the commencement of mixing the whole of the material should be used within 90 minutes at 20°C. For small volume mixes, the mixing ratio is 5:1 by volume.

The degree of thermal barrier protection is directly proportional to the applied thickness of the coating so the thickness required will be dependent on the temperature of the underlying substrate and the temperature reduction required. Under normal circumstances between 1000 and 3000 microns should be applied with typically up to 1000 microns being allied in a single coat.

Apply the mixed material onto the prepared surface by brush or squeegee using a practical coverage rate of $0.85~\text{m}^2$ per litre at 1000~microns coat. Apply subsequent coats as soon as possible after the underlying coat is touch dry and not in excess of 36~hrs. Where the maximum over-coating interval is exceeded, the underlying coat should be allowed to fully harden before sweep blasted or abraded and cleaned prior to over-coating.

Where spray allocation is required, this should be carried out by heated airless spray. A typical spray set up will involve a 63:1 airless spray unit with either in-line heater or trace heated lines capable of heating the product to at least 35° C, an input pressure of 60psi and a tip size of 0.025 - 0.03 inches. The practical coverage rate for spraying is typically 0.75m $^{2} - 0.8$ m 2 per litre for a 1000 microns coating, although thickness up to 3000 microns per coating can be achieved when spraying.

Cure Times

At 20°C the applied materials should be allowed to harden for the times indicated in the table above, before being subject to the conditions indicated. These times will be extended at lower temperatures and reduced at higher temperatures.

Storage Life

5 years in unopened and stored in normal dry conditions (15-30°C)

Health and Safety

Please ensure good practice is observed at all times during the mixing and application of this product. Protective gloves and other recommended personal protective equipment must be worn during the mixing and application of this product. Before mixing and applying the material ensure you have read and full understand the MSDS.

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