



Unique Polymer Systems

ADVANCED POLYMER SURFACE ENGINEERING TECHNOLOGY

## Unique Polymer Systems – Therma-Tech LG



UPS 'Therma-Tech LG' is a high performance polymeric coating designed to encapsulate and protect all types of thermal insulation materials and dangerous asbestos fibre against surface spread of flame.

UPS 'Therma-Tech LG' is designed to provide maximum protection against under insulation corrosion in the most aggressive environments.

UPS Therma-Tech LG contains a complex blend of acrylic resins combined with colour stable and flame retardent pigments to provide the optimum level of adhesion, impact and durability in all types of weather.

The UPS 'Therma-Tech LG' flexible reinforced coating system offers outstanding waterproofing and weatherproofing properties and is totally unaffected by extreme levels of ultra violet light and remains flexible at temperatures of -30°C to 160°C.

UPS 'Therma-Tech LG' is simple and easy to use and promotes excellent resistance to fungal and algal growth. This ease of application allows the UPS 'Therma-Tech LG' to be used as a vapour barrier or breather coat with a maximum of two coats (see recommended film thickness).

**Before proceeding, please read the following information carefully to ensure that the correct application procedure is fully understood.**

### SURFACE PREPARATION

Any broken or loose sections of insulation must be made good and at least temporarily secured. Any exposed rusting steel must be protected with UPS 'Anti-Corrosion Aluminium' or similar recommended alternative. Make all joints sound and gap free to allow an even film build of the UPS 'Therma-Tech LG' system.

Remove all loose dust, dirt by vacuum or similar low dust method. Grease and oil should be cleaned up from all surfaces with an effective industrial detergent and rinsed clean.

### Priming Adjacent Areas

Adjacent areas of brick, concrete, non ferrous metal or previously coated surfaces should be primed with UPS 'G.P. Primer' in accordance with the product tech sheet. Steel surfaces should be primed with UPS 'MA3 Tie-Coat'

Bituminous surfaces and porous surfaces such as asbestos should be primed with UPS 'Hycote 700WT Primer'

### MIXING

UPS 'Therma-Tech LG' is a single component material and should only require stirring prior to use to incorporate any slight separation.

### APPLICATION

#### Sprayed Asbestos Encapsulation

Airless spray is the preferred method of application. See airless spray section for further details.

#### Thermal Insulation

Use clean water to dampen the insulation surface. This ensures good adhesion of the following application of UPS 'Therma-Tech LG':

Where a diluted UPS 'Therma-Tech LG' layer is preferred to "wet down" the insulation surface - then an equal volume of clean water should be added to UPS 'Therma-Tech LG' stirring continuously until fully incorporated.

#### Applying UPS 'Therma-Tech LG' with Reinforcing

First apply UPS Therma-Tech LG to the surface as a smooth, even spray coat. Whilst still wet bed in the UPS 'Therma-Tech LG Reinforcing', avoiding creasing. Use either a spiral wrapping technique or a longitudinal lay and overlap. Overlaps should be ½"-1" (1-2 cms). As far as is possible contours should be closely followed and areas of difficult access can be mirror inspected to ensure full wetting of the reinforcing. Check that coverage rate is in accordance with guidelines given.

#### Applying Final Layer of UPS 'Therma-Tech LG'

Once the first coat of UPS 'Therma-Tech LG' surface is dry, apply the final layer of UPS 'Therma-Tech LG,' again taking special note of the coverage rate. If the UPS 'Therma-Tech LG Reinforcing' has not been used (sprayed asbestos ceilings, walls for example) then a third layer of UPS 'Therma-Tech LG' will be necessary to ensure adequate film build.

### Airless Spray

Airless spray application is the preferred method of applying UPS 'Therma-Tech LG' on very loose, powdery surfaces, such as sprayed asbestos or similar.

Dilute the UPS 'Therma-Tech LG' with up to 20% clean water by volume, equivalent to 4 litres clean water, added slowly with constant stirring to a 20 litre quantity of UPS 'Therma-Tech LG'

A typical Airless Spray Set-Up would be:-  
32:1 pump / 18-20 thou tip, with a minimum pressure of 2000 psi at the tip.

### Theoretical Coverage Rate

3 m<sup>2</sup> / litre at 330 microns wft (32 ft<sup>2</sup> per litre at 13 mils wft)  
1.4 m<sup>2</sup> / litre at 700 microns wft (13.5 ft<sup>2</sup> per litre at 28 mils wft)  
2.5 m<sup>2</sup> / litre at 400 microns wft (27 ft<sup>2</sup> per litre at 16 mils wft)  
2 m<sup>2</sup> / litre at 500 microns wft (21.5 ft<sup>2</sup> per litre at 20 mils wft)

### Typical Coverage Rates

Typical coverage rates for different insulating materials are as follows:

	<u>1st layer</u>	<u>2nd layer</u>
New Calcium Silicate	2.5m <sup>2</sup> (27ft <sup>2</sup> )	4.2m <sup>2</sup> (45ft <sup>2</sup> )
Old Calcium Silicate	1.95m <sup>2</sup> (21ft <sup>2</sup> )	4.2m <sup>2</sup> (45ft <sup>2</sup> )
New Glass Fibre/Mineral Wool	1.4m <sup>2</sup> (15ft <sup>2</sup> )	2.8m <sup>2</sup> (30ft <sup>2</sup> )
Old Glass Fibre/Mineral Wool	0.93m <sup>2</sup> (10ft <sup>2</sup> )	2.8m <sup>2</sup> (30ft <sup>2</sup> )
New Foam Sections	2m <sup>2</sup> (22ft <sup>2</sup> )	4.2m <sup>2</sup> (45ft <sup>2</sup> )
Old Foam Sections	1.67m <sup>2</sup> (18ft <sup>2</sup> )	4.2m <sup>2</sup> (45ft <sup>2</sup> )

Detailed working recommendations are available from the Technical Centre on request.

### RECOMMENDED FILM THICKNESSES (TYPICAL)

#### Thermal Insulation

Vapour Barrier - 2 coats at 700 microns wft per coat  
Breather Coat - 2 coats at 330 microns wft per coat.

#### Asbestos Encapsulation

One diluted coat (equal volume of water / UPS 'Therma-Tech LG'  
100 microns wft plus one coat undiluted at 500-600 microns wft

### PHYSICAL CONSTANTS

**Mixing Ratio** Supplied ready for use.

**Appearance** Thixotropic Coloured Liquid

#### Drying & Cure times at 20°C (68°F)

Touch dry	1 hour
Min.Overcoating	24 hours

**Volume Solids** 60%

**V.O.C** Nil

**Water Vapour Permeability** 0.0696 perm.cm  
ASTM E96

#### Fire Performance (Applied at recommended dft)

Tested to IMO Fire Test procedures code, Annex 1 Part 5 and Part 2. Complies with the applicable Lloyds Register Rules and Regulations and with the International Convention for the safety of life at sea, (SOLAS), 1974.

**Shelf Life** Use within 2 years of purchase. Store in original sealed containers at temperatures between 5°C (40°F) and 30°C (86°F). PROTECT FROM FROST

### HEALTH AND SAFETY

As long as normal good practice is observed UPS 'Therma-Tech L.G' can be safely used.

Vapour masks should be worn for spray application.

A fully detailed Material Safety Data Sheet is either included with the material or is available on request.

### PACKAGING

Supplied in 20 litre units.

### FOR FURTHER INFORMATION PLEASE CONTACT



The information provided in this Product Data Sheet is intended as a general guide only and should not be used for specification purposes. The information is given in good faith but we assume no responsibility for the use made of the product or this information because this is outside the control of the company. Users should determine the suitability of the product for their own particular purposes by their own tests.



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