



# TECHNICAL DATA SHEET

## UNI-TECH U.V.

### Two Component Solvent Based Polyurethane Coating

**Thortex Uni-Tech U.V** is a high performance polymeric finish system specifically developed for the long term cosmetic protection of all types of structures such as concrete, brickwork, plaster, GRP, steel, aluminium or galvanised steel.

**Thortex Uni-Tech U.V.** is based on a unique blend of acrylic and urethane polymers reinforced with colour stable, chemical resistant pigments to produce a system which offers outstanding weather, abrasion, chemical and graffiti resistance, together with optimum gloss and colour stability.

**Thortex Uni-Tech U.V.** is totally unaffected by extreme levels of ultra violet light and offers outstanding protection to internal and external surfaces.

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

#### SURFACE PREPARATION

Steel surfaces should be primed with the appropriate **Thortex Primer**.

Aluminium and galvanised steel surfaces should be primed with **Thortex Uni-Tech MC Primer**.

Concrete, brick and other masonry surfaces should be primed with **Thortex Uni-Tech MC Primer** or **Thortex Uni-Tech GP Primer**. Glazed tiled surfaces should be primed with **Thortex Uni-Tech GP Primer**.

All primed surfaces must be clean, dry and free from oil, grease and other contamination.

All primers should be applied in accordance with their product tech sheet.

#### MIXING

**Thortex Uni-Tech U.V.** is a two component material which must be mixed together prior to use.

The base component should be thoroughly stirred to incorporate any slight separation, whilst continuing stirring the contents of the activator container should be added. Continue stirring until a homogeneous mix is obtained.

The mixed material must be used within 2 hours of mixing at 20°C (68°F).

#### APPLICATION

Application should not be carried out when relative humidity exceeds 85% or when the surface to be coated is less than 3°C above the dew point. The minimum temperature for application is 2°C (36°F).

**Brush:** Good quality brushes should be used with even strokes, ensuring that the **Thortex Uni-Tech U.V.** is not overbrushed leading to less than the specified coating thickness.

**Roller:** Short pile mohair rollers are the preferred equipment for this application method. **Thortex Uni-Tech U.V.** should be spread evenly with regular checks made to ensure the correct uniform wet film thickness is achieved.

**Thortex Uni-Tech U.V.** does not normally require thinning for brush / roller application. Where thinning is required **Thortex Polyurethane Thinners** may be added.

**Airless Spray:** Typical spray settings are as follows:

Pump Ratio	32:1
Tip Size	0.013-0.015"
Tip Pressure	2000 psi

Excessively high tip spraying pressure should be avoided. The minimum pressure at the pump conducive to good atomisation should be used. **Thortex Uni-Tech U.V.** may require up to 10% **Thortex Polyurethane Thinners** for airless spray application.

**Conventional Spray:** Pressure Pot or Airless Assisted units are suitable types of equipment. A typical tip setting is a Devilbiss JGA 502 Gun with JGA 402FF Needle. **Thortex Uni-Tech U.V.** may require up to 20% **Thortex Polyurethane Thinners** for conventional spray application.

All equipment must be cleaned IMMEDIATELY after use with **Thortex Universal Cleaner**.

#### Theoretical Coverage Rate

13.75 m<sup>2</sup>/litre at 40 microns dft (148 ft<sup>2</sup>/litre at 1.6 mils dft)

#### Recommended Film Thickness

Wet 72 microns (3 mils)  
Dry 40 microns (1.6 mils)

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

## PHYSICAL CONSTANTS

**Mixing Ratio** Full Gloss and Semi-Gloss  
3 parts base to 1 part activator by volume.  
Matt and Low Gloss  
4 parts base to 1 part activator by volume

**Appearance** Base Coloured Liquid  
Activator Clear Liquid

**Drying & Cure Times at 20°C (68°F)**

Usable Life	2 hours
Touch Dry	3-4 hours
Hard Dry	16 hours
Minimum Overcoating	6 hours
Maximum Overcoating	24 hours
Full Cure	7 days

**Volume Solids** 55%

**V.O.C.** 365 gms/litre

**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).

## Fire Performance

(Applied at recommended dft)

BS476 Part 7 Class 1 surface spread of flame  
BS476 Part 6 Class 0 in accordance with UK Building Regulations 1985 Approvals Document B2/3/4 Appendix A.

**Food Contact** Meets USDA requirements for incidental food contact.

Meets FDA requirements CFR 21.175.300 for food contact.

## PHYSICAL PROPERTIES

**Abrasion Resistance** 25 mgm weight loss per  
ASTM D4060 500 cycles-CS10 wheel

**Impact Resistance** No failure (0.9 kg load  
BS2782 Part 3 dropped 45 cm)

**Scratch Resistance** No failure 2.5 kg load  
BS3900 Part E2

**Water Vapour Permeability** 3.74 x 10<sup>-5</sup> perm.cm  
ASTM D1653

**U.V. Resistance** 1000 hours QUV-B no loss  
ASTM G 53 of gloss, no colour change

## HEALTH AND SAFETY

As long as normal good practice is observed **Thortex Uni-Tech U.V.** can be safely used.

Vapour masks should be worn for spray applications.

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

## PACKAGING

Supplied in 4 and 20 litre packs.

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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FOR FURTHER INFORMATION PLEASE CONTACT