www.thortex.co.uk

TECHNICAL DATA SHEET

POLY - TECH

Single Component Water-Based Waterproofing Coating

Thortex Poly-Tech is a high performance universal roof protection system specifically developed for long term protection of all types of roof surfaces.

The **Thortex Poly-Tech** formulation contains a complex blend of acrylic resins and aliphatic hydrocarbon polymers reinforced with inorganic fibres and reinforcing agents to produce a system which offers outstanding weatherproofing and waterproofing properties with optimum levels of UV resistance, flexibility, adhesion and durability for any roof surface including asphalt, bitumen, mineral felt, asbestos, aluminium, concrete, galvanising and any metal surface.

Thortex Poly-Tech is designed for application by brush incorporating **Thortex Poly-Tech Reinforcing Sheet** to provide a durable waterproofing system capable of 10 years minimum protection.

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

SURFACE PREPARATION

The **Thortex Poly-Tech** system should only be applied to structurally sound roof areas. On flat roofs which have been dressed with large or medium size chippings, these must be removed prior to application. A mechanical flail should be used to remove the chippings and then the area swept down to remove all loose dirt and dust.

On asphalt roofs, blisters should be cut out and the void filled with polymer concrete screed. On felt roofs, severe blisters should be cut open and bonded flat.

Any areas of moss or lichen growth should be treated with **Thortex Fungicidal Wash** in accordance with the instructions.

Any surface to be protected must be clean, dry and firm, and this is especially important with metallic, glass or plastic surfaces.

At any wide joints (such as joints on corrugated roofs or poor fitting flashings) or where excessive movements can be expected (such as valley gutter joints) it is advisable to apply **Thortex Poly-Tech Bridging Tape** over these areas.

To apply the **Thortex Poly-Tech Bridging Tape** simply peel off the protective film and press down firmly, following the contour as far as possible. Finally, ensure the edges of the **Thortex Poly-Tech Bridging Tape** are pressed down to be flush with the surface.

MIXING AND APPLYING THE THORTEX POLY-TECH PRIMERS

Bituminous and Porous Surfaces: Surfaces should be primed with **Thortex Poly-Tech BP Primer. Thortex Poly-Tech BP Primer** is supplied ready to use - no mixing is required but it is advisable to shake the container prior to use to obtain a consistent product. Detailed application procedures are given on the **Thortex Poly-Tech BP Primer** Tech Sheet.

Glass, Previously Painted Surfaces and Most Metal Surfaces: Surfaces should be primed with **Thortex Uni-Tech GP Primer.** Detailed application procedures are given on the **Thortex Uni-Tech GP Primer** Tech Sheet.

Copper and Ferrous Metal Surfaces: Surfaces should be primed with **Thortex Uni-Tech MC Primer.** Detailed application procedures are given on the **Thortex Uni-Tech MC Primer** Tech Sheet.

For coverage rates of primers refer to the appropriate primer tech sheet.

APPLYING THE POLY-TECH SYSTEM

Thortex Poly-Tech should not be applied below 5°C, when rain is falling or when rain is imminent, or when humidity exceeds 90%. In winter months due consideration must be given to the early onset of condensation formation in early afternoon and application of **Thortex Poly-Tech** should be discontinued well before this time.

The **Thortex Poly-Tech** 10 year system is a two coat system using **Thortex Poly-Tech** with **Thortex Poly-Tech Reinforcing Sheet** included in the first coat.

Thortex Poly-Tech Reinforcing should be secured into the **Thortex Poly-Tech** immediately after application where necessary. The reinforcing must follow the contour of the surface and must not be pulled or stretched to leave hollow areas. **Thortex Poly-Tech** should then be brushed onto and through the Reinforcing, keeping the thickness of the **Thortex Poly-Tech** as even as possible and no thicker than is required to wet down the reinforcing.

The second coat of **Thortex Poly-Tech** should then be applied using a good quality brush a minimum of 2-4 hours after the first coat. The minimum overcoating interval will depend upon the roof temperature and drying conditions. Provided the first layer of **Thortex Poly-Tech** is clean there is no maximum overcoating time.

Do not apply **Thortex Poly-Tech** beyond the areas coated with primer.

Where large applications are involved, Reinforcing should be laid out over the primed area and the **Thortex Poly-Tech** brushed through the Reinforcing to provide a uniform layer which follows the contour of the surface. Adjacent widths of Reinforcing should allow 1-2 cm overlap.

Recommended Minimum Film Thickness (Per Coat)

Wet 300 microns (12 mils)
Dry 180 microns (7 mils)

Theoretical Coverage Rate

The Theoretical coverage rate for **Thortex Poly-Tech** (unreinforced) is :-

3.3 m² / litre at 180 microns dft (35.5 ft²/litre at 7 mils dft).

In practice the coverage will be reduced significantly depending on the surface involved and a guide to practical coverage rates for the **Thortex Poly-Tech** system is given in the table below.

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

PHYSICAL CONSTANTS

Mixing Ratio Supplied ready for use.

Appearance Viscous coloured thixotropic liquid.

Drying & Cure times

at 20°C (68°C)		
	Touch Dry	1-2 Hours
	Minimum Overcoating	2-4 Hours
	Maximum Overcoating	Indefinite provided surface is clean.
	Shower Resistant	30 minutes
	Water Resistant	2 hours

Volume Solids 60%

V.O.C. Nil

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.

Fire Performance: External Fire Exposure Roof Test
BS476 Part 3: 1958
Category EXT.F.AB

HEALTH AND SAFETY

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

When spraying **Thortex Poly-Tech CSM** the use of vapour masks is advisable.

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

PACKING

Supplied in 5 and 20 litre units.

PHYSICAL PROPERTIES

Direct Pull Adhesion ASTM D4541	28 kg/cm² (400 psi) - concrete
Water Vapour Permeability ASTM E96-95	$1x10^{-4}$ perm.cm
Tensile Strength ASTM D412	42 kg/cm² (600 psi)
Elongation ASTM D412	150%
Tear Strength ASTM D624	9.84 kg/cm (55 pli) unreinforced 17.3 kg/cm (95 pli) reinforced
Ozone Resistance (160 hours/110 ppm at 104°F) ASTM D1149	No Cracking

POLY-TECH COVERAGE RATES

In hot and windy conditions or when coverage rates are not being achieved, water can be added to **Thortex Poly-Tech** to improve coverage.

Thortex Poly-Tech Coverage Rates	Smooth Asphalt or Felt	Mineral Felt or small Chippings	De-Chipped Felt	Concrete or Brick	Asbestos Cement New	Asbestos Cement Weathered	Glazing Repairs Metal Bars	Glazing Repairs Wood Bars	Metals, Lead, Aluminium, Galvanised, Steel Painted Surface	Copper Ferrous Metals
First coat Poly-Tech with Poly-Tech Reinforcing / litre	21 ft² 1.9 m²	Will Range From 10 - 18 ft² 0.9 - 1.7 m²			21 ft² 1.9 m²	15 ft² 1.4 m²	21 ft² 1.9m²	18 ft² 1.7 m²	21 ft² 1.9 m²	21 ft² 1.9 m²
Poly-Tech 2nd coat/litre	35 ft² 3.3 m²	35 ft² 3.3 m²	35 ft² 3.3 m²	35 ft² 3.3 m²	35 ft² 3.3 m²	35 ft² 3.3 m²	35 ft² 3.3 m²	35 ft² 3.3 m²	35 ft² 3.3 m²	35 ft² 3.3 m²
*Poly-Tech System two coats/litre	13 ft² 1.2m²	Will Range From 8 - 12 ft² 0.75 - 1.1 m²			13 ft² 1.2 m²	10.5 ft² 1.0 m²	13 ft² 1.2 m²	12 ft² 1.1 m²	13 ft² 1.2 m²	13 ft² 1.2 m²

*To aid estimating the **Poly-Tech** two coat figures can be used. However in practice, the first coat is applied with **Poly-Tech Reinforcing**. This results in more **Poly-Tech** being used with the first coat. The first coat and second coat coverage rates for **Poly-Tech** reflect this difference.

FOR FURTHER INFORMATION PLEASE CONTACT

www.thortex.co.uk

Thortex Division of E. Wood Ltd.
Standard Way, Northallerton, N. Yorks. U.K. DL6 2XA
Tel: +44(0)1609 780170 Fax: +44(0)1609 780438 & 777905
E Mail: thortex@ewood.co.uk
Buy online: www.thortex.co.uk/shop