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TECHNICAL DATASHEET

PYRO-TECH SPX

Single Component Water Based Intumescent Coating



Thortex Pyro-Tech SPX is a high performance water based fire protection system specially developed to provide enhanced fire resistance to structural steel for periods ranging from 30 to 90 minutes duration.

Thortex Pyro-Tech SPX is based on a special blend of acrylic resins combined with highly efficient intumescent pigments and fillers which provide the optimum resistance to fire propagation. This unique combination of resins and pigments enables the coating to minimise flame spread in the event of a fire thus restricting the speed at which the fire can be spread.

Thortex Pyro-Tech SPX is designed for use in enclosed internal conditions. Where **Thortex Pyro-Tech SPX** could be exposed to moisture **Thortex Pyro-Seal** should be applied as a protective sealer coat. (Refer to System Recommendation).

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

SURFACE PREPARATION

All surfaces should be abrasive blasted cleaned to a minimum standard Sa2½ in accordance with BS7079 Part A1, with a mean surface profile of 30-60 microns. All surfaces should be dry and free from dust, grease and other contaminants. Within 4 hours of blast cleaning the prepared surface should be coated with an appropriate primer to provide the required long term corrosion resistance. A variety of two component epoxy and single component alkyd primers are suitable. Appropriate two component Thortex primers include **Thortex Uni-Tech M.C. Primer** or **Thortex Corro-Tech W.B.** which should be applied in accordance with the appropriate product tech sheet.

Thortex Pyro-Tech SPX can be applied over certain types of shop primer used in the Construction Industry, for specific information please consult the Thortex Technical Centre.

Primed surfaces should be clean, dry and free from contamination.

MIXING

Thortex Pyro-Tech SPX is a single component material and should only require stirring to incorporate any slight separation prior to use.

APPLICATION

Thortex Pyro-Tech SPX should not be applied when the relative humidity exceeds 80% or the surface to be coated is less than 3°C above the dew point. The product should not be applied at temperatures below 7°C.

The preferred method of application for **Thortex Pyro-Tech SPX** is via heavy duty airless spray. Typical equipment would comprise a 45 or 60:1 ratio pump in conjunction with an input air pressure of 50-80psi, giving a pressure at the tip of 3000 - 3500 psi. Appropriate spray tip sizes are normally in the range of 0.017" - 0.027" (0.4 - 0.7mm), however the optimum tip size/fan angle will be determined by the geometry of the steel section(s) being coated.

When applied by airless spray, dry film thickness of up to 1000 microns (1515 microns wft) may be applied in a single coat. Higher dry film thicknesses should be achieved by the application of two separate coats of approximately equal thickness.

Thortex Pyro-Tech SPX may be applied by brush, however in order to ensure an even coating thickness, the desired thickness should be attained by the application of successive coats of no more than 300 microns dft (455 microns wft) per coat.

Where multiple coats of **Thortex Pyro-Tech SPX** are required to obtain the prescribed dry film thickness, adequate drying time between the coats should be allowed. At 20°C, the minimum overcoating time is typically 4-6 hours. However, this time will vary considerably depending upon the prevailing temperature, relative humidity, air movement and thickness of material applied. Provided the surface is dry and free from contaminants, the maximum overcoating period is indefinite.

To maintain durability, **Thortex Pyro-Tech SPX** must be overcoated with a sealer coat, full details of suitable sealer coats are available from E.Wood Technical Centre.

All equipment must be cleaned IMMEDIATELY after use with clean water. Stubborn deposits can be removed with **Thortex Universal cleaner**.

Theoretical Coverage Rate

0.65 m² / litre at 1mm dft.
1.3m"/litre at 500 microns dft

Recommended Film Thickness

Refer to product loading tables in System Recommendation Manual.

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

PHYSICAL CONSTANTS

Mixing Ratio Supplied ready for use

Appearance Viscous coloured liquid

Drying & Cure Times at

20°C (68°F)	Surface Dry	4-6 hours
	Handlable	approximately 12 hours depending on thickness
	Minimum Overcoating	4-6 hours
	Full Cure:	7 days
	Note:	All times will vary depending on drying conditions and applied thicknesses.

Volume Solids 66%

V.O.C. Nil

Shelf Life Minimum 6 months from date of purchase.
Store in original sealed containers at temperatures between 5°C (40°F) and 30°C (86°F).
ALWAYS PROTECT FROM FROST DURING STORAGE AND USE.

FIRE RESISTANCE

Tested in accordance with BS476:Part 21:1987

HEALTH AND SAFETY

Provided good practice is observed **Thortex Pyro-Tech SPX** does not present any health hazard during normal use.

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

PACKAGING

Supplied in 20 litre units.

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