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TECHNICAL DATA SHEET

PYRO-TECH SPX 90

Single Component Water Based Intumescent Coating

Thortex Pyro-Tech SPX 90 is a high performance water based fire protection system specially developed to provide enhanced fire resistance to structural steel which require 90 minutes protection.

Thortex Pyro-Tech SPX 90 is based on 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 90 is designed for use in enclosed internal conditions. Where **Thortex Pyro-Tech SPX 90** 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 contaminents. 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 90 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 90 is a single component material and should only require stirring to incorporate any slight separation prior to use.

APPLICATION

Thortex Pyro-Tech SPX 90 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 90** 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 optimium 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 (1550 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 90 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 (450 microns wft) per coat.

Where multiple coats of **Thortex Pyro-Tech SPX 90** 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 indefinate.

To maintain durability, **Thortex Pyro-Tech SPX 90** 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	approximately12 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	65%	
V.O.C.	Nil	
Shelf Life	Minimum 6 months 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 and assessed in full compliance with the Criteria of Acceptability of the ASFP/BCF Intumescent Coatings Forum Code of Practice for Thin Film Intumescent Coatings.

HEALTH AND SAFETY

Provided good practice is observed **Thortex Pyro-Tech SPX 90** 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.

FOR FURTHER INFORMATION PLEASE CONTACT

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