

PHX 370-90 WATER BASED

INTUMESCENT FIRE RESISTANT COATING

DESCRIPTION:

ZONE Phoenix 370-90 Water-based Intumescent Coating is a single component water based, low VOC (TCEP free), thin film intumescent coating for fire protection of internal structural steelwork.

USES:

ZONE Phoenix 370-90 is designed for application by airless spray to provide cellulosic fire resistance for periods of up to 150 minutes on structural steel I-sections (columns and beams) and 120 minutes hollow sections.

For use in internal dry controlled environments without topcoat. (C1 according to BS EN ISO12944-2:2017) and uncontrolled internal environments with topcoat (C3 according to BS EN ISO12944-2:2017). (See Weather Protection of Intumescent Steel Pg 2)

FEATURES:

- Waterbased technology with ultra low VOC 0.19gms/litre (EPA Method 24). Suitable for Green Buildings.
- Highly competitive loadings, refer to Zone DFT's
- Easy application properties including low odour
- No top coat required for concealed non decorative steel
- Applied by ZONE's preferred applicator network for quality assurance and code compliance

Gloss	Flat
Colour	White
Film	DFT's as specified by Zone.
Thickness	Calculations are reported in Steelcalc on a per project basis
Volume Solids	75 ±3%
Thinner	Water (thinning will have an adverse effect on sag tolerance)
Application	Airless Sprayer and Brush
Pack Size	20 litres 1.40kg/litre
Shelf Life	12 months from date of manufacture which is designated by "use by" date on pail, opened life 30-60 days only.

ENDORSEMENTS:

- Certfire Approved - Certificate
- Independently tested in accordance with BS 476: Part 20 & 21: 1987
- This product has been tested and assessed in accordance with the ASFP fire testing protocol for cellular beam protection. See Section 4.1 from ASFP "Yellow Book" 5th Edition.

PRACTICAL APPLICATION RATES:

	Airless Spray	Brush
Dry	622	325
Wet	900*	435

*Maximum sag tolerance typically 900µm wet by airless spray

AVERAGE DRYING TIMES:

	@ 15°C	@ 23°C
To touch	3 hours	1.5 hours
To recoat	6 hours	4 hours
To handle	Depends on thickness applied	

No more than two coats by airless spray should be applied within any 24 hour period.

These figures are a guide only. Factors such as air movement and humidity must also be considered.

RECOMMENDED PRIMERS:

A range of primers have been tested and approved for use under ZONE Phoenix 370-90. Please consult Zone for a detailed list.

Must not be applied directly to galvanized steel and / or zinc rich primers.

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TOPCOATS:

If it can be guaranteed that application and subsequent in-service conditions will be in a C1 environment as defined in AS/NZS2312:2014 then no topcoat is required.

For any other situation a topcoat must be applied, consult ZONE for further advice.

APPLICATION & STORAGE CONDITIONS:

Store in temperatures between 10-30°C. Store in original un-opened containers. Protect from frost and freezing. Do not apply when temperature is below 15°C. Do not apply when RH is above 80%. Ensure adequate ventilation is available during application. Protect from frost at all times.

SURFACE PREPARATION:

General	All surfaces should be clean, dry and free from surface contamination.
Steel	Abrasive blast clean to a minimum class Sa 2 ½ thorough blast clean finish to AS 1627, Part 4 or SSPC-SP10 near white metal.
Galvanised Steel	Remove grease, oil and other solvent-soluble contaminants. Dry and immediately abrade surfaces to provide an adhesion key. Tie-coat of Wattyl Macropoxy PR250 Primer at 40 microns is required.
Zinc Rich	A mist tie-coat of Wattyl Epinamel Epoxy Primer PR250 Primer or similar (specified) general purpose primer, must be used prior to intumescent application. Please refer to ZONE specification.

APPLICATION EQUIPMENT:

Airless Sprayer Nozzle size: 19-21 thou depending on application requirements

Pressure 175kg/cm² (2500 psi)

The airless sprayer is intended as a guide only. Details such as fluid hose length and diameter, paint temperature, job shape and size all have an effect on the spray tip and operating pressure chosen. is available during application. Consult ZONE as required.

WEATHER PROTECTION OF INTUMESCENT COATED STEEL SECTIONS:

ZONE PHOENIX Intumescent Coatings are recommended to be site applied. Phoenix water based intumescent coatings must be top coated with approved topcoat system if the steelwork is likely to be exposed to weathering on site. Ensure intumescent coated sections are protected against immersion, ponding, pooling, standing or flowing water on site. Contact Zone for further details.

APPLICATION CONDITIONS & OVERCOATING:

ZONE PHOENIX 370-60 WATER BASED INTUMESCENT COATING MUST BE APPLIED IN A DRY INTERNAL ENVIRONMENT. Do not expose to wet conditions during or after application. In conditions of high relative humidity good ventilation conditions are essential. Substrate temperature shall be at least 3°C above the dew point and always above 0°C.

At application temperatures below 10°C, drying and curing times will be significantly extended, and spraying characteristics may be impaired. A minimum ambient air temperature of 5°C is required to ensure proper film formation. **Relative humidity shall not exceed 80% to ensure proper film formation.** Coating can be retarded at high humidity levels.

Extended overcoat times may be required at low temperatures and / or high film thicknesses. Introduce airflow at 2m/s to speed up drying times.

HEALTH & SAFETY:

Consult the MSDS for safe handling and storage.

WARRANTY:

Durability and Warranties are described in AS/NZS2312:2014. Please consult Zone prior to project commencement.