

**DESCRIPTION**

A single component water based TCEP free thin film intumescent coating for fire protection of structural steelwork.

**PRODUCT FEATURES AND RECOMMENDED USES**

- For use on both structural steel hollow and I-section members (columns and beams) to provide up to 120 minutes cellulosic fire protection.
- Can be used externally with Phoenix Topseals or other compatible topcoats. Consult Phoenix before use to confirm compatibility.
- Tested and assessed in accordance with BS 476: Part 20 & 21: 1987 and the Criteria of Acceptability given in the ASFP/ BCF “Industry Guidance Document”.
- Highly competitive loadings.
- Easy application properties.

**PHYSICAL DATA**

Specific Gravity	: 1.40 kg/litre.
% Solids by Volume	: 75 ± 3 % (ASTM-D2697-91).
Color	: White.
VOC	: 0.19 g/ litre calculated from formulation to satisfy EC Solvent Emission Directive; 0.13 g/ kg content by weight from formulation to satisfy EC Solvent Emission Directive.
Recommended Application Method	: Airless Spray & Brush.
Recommended Thinner	: Water (See additional notes).
Recommended Thickness	: Refer to loading tables of Phoenix 370-90.
Pack Size	: 20-litre units
Shelf Life	: 12 months from date of manufacture or ‘Use By’ date where specified; Protect from frost.

**PRACTICAL APPLICATION RATES (MICRONS PER COAT)**

	Airless Spray	Brush
Dry	1050	325
Wet	1400*	435

\* Maximum sag tolerance typically 1500 µm WFT by airless spray.

**AVERAGE DRYING TIMES**

	Temperature @ 15 °C	Temperature @ 23 °C
To Touch	3 Hours	1.5 Hours
To Recoat	6 Hours	4 Hours
To Handle	Depending on the total thickness of Phoenix 370-90 to be applied	

No more than two coats by airless spray should be applied within any 24-hour period. The above figures are given as guide only. Factors such as air movement and humidity must also be considered.

**RECOMMENDED PRIMERS**

A range of primers have been fire tested and approved for use under Phoenix 370-90. Consult Phoenix Fire Protection for detail information.

**Phoenix 370-90 is not recommended to be applied directly onto galvanized steel and zinc rich primers.** Consult Phoenix Fire Protection for more information and technical advices.

**RECOMMENDED TOPCOAT**

If it can be guaranteed that application and subsequent in-service conditions of Phoenix 370-90 will be in a C1 environment as defined in ISO 12944-2: 1998, then no topcoat is required.

For any other situation, a topcoat, Phoenix APT, must be applied. Topcoats manufactured and supplied by other manufacturers may also be used. Consult Phoenix Fire Protection for technical advices and topcoat compatibilities.

**SURFACE PREPARATION**

Ensure surfaces to be coated are clean, dry and free from surface contaminants.

**APPLICATION EQUIPMENT****Airless Spray**

Nozzle size : 19 to 21 thou depending on application requirements.

Operating Pressure : 175 kg/ cm<sup>2</sup> (2500 psi)

**Petrol Unit**

Nozzle size : 19 to 21 thou depending on application requirements.

Operating Pressure : 175 kg/ cm<sup>2</sup> (2500 psi)

### APPLICATION EQUIPMENT (CONTINUED)

The airless spray details given above are intended as a guide only. Details such as fluid hose length and diameter, paint temperature and job shape and size all have an effect on the spray tip and operating pressure chosen.

However, the operating pressure should be the lowest possible consistent with satisfactory atomization. As conditions will vary from job to job, it is the applicator's responsibility to ensure that the equipment in use has been set up to give the best results. If in doubt, consult Phoenix Fire Protection.

Use 3/8' ID fluid line where lengths in excess of 10 feet are required. In-line gun or pump filters should not normally be used.

Phoenix 370-90 is also suitable for brush application, but due to the nature of the material, a ribbed appearance will result. Application of more than one coat may be necessary to give equivalent dry film thickness to a single applied coat by airless spray.

### APPLICATION CONDITIONS AND OVERCOATING

**Phoenix 370-90 must be applied in a dry environment. It must not be exposed to wet conditions during or after application.**

In conditions of high relative humidity good ventilation conditions are essential. Substrate temperature should 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 should not exceed 80% to ensure proper film formation.**

**Extended overcoating times may be required at low temperatures and/ or high film thicknesses.**

### ADDITIONAL NOTES

In common with other water based coatings, the drying of Phoenix 370-90 is retarded by high humidity conditions. Lack of air movement also slows down the drying process, and under such conditions it is advisable to introduce some method of circulating air over the coated surface in order to speed up the drying. A ventilated air speed of 2 meters per second is recommended.

Numerical values quoted for physical data may vary slightly from batch to batch.



## PHOENIX 370-90

Product Data Sheet

[www.phoenixasia.com.hk](http://www.phoenixasia.com.hk)

### HEALTH AND SAFETY

Refer to Material Safety Data Sheet for information on safe storage, handling and application of Phoenix 370-90.

Unlike many other water based intumescent coatings, Phoenix 370-90 does not contain Tris-Chloro Ethyl Phosphate (TCEP).

TCEP is a category 3 carcinogen, which would cause products to be classified as harmful. Since Phoenix 370-90 is TCEP free, it is not classified as harmful by the Chemicals (Hazard) Information and Packaging for Supply Regulations 2002.

### WARRANTY

Any person or company using the product without first making further enquiries as to the suitability of the product for the intended purpose does so at their own risk, and Phoenix Fire Protection can accept no liability for the performance of the product, or for any loss or damage arising out of such use.

The information detailed in this data sheet is liable to modification from time to time in the light of experience and of normal product development, and before using, customers are advised to check with Phoenix Fire Protection, quoting the reference number, to ensure that they possess the latest issue.