

## 471 Polyamide Cured Epoxy Primer

### *Product Data/Application Instructions*

#### *(For Marine & Offshore use)*

- A superior epoxy polyamide primer coating
- Forms durable coating systems with a wide range of topcoats for immersion and non-immersion services
- Suitable for a variety of substrates
- Excellent rust inhibitive shop primer in corrosive environments
- Suitable as tiecoat over Dimetcote

### *Typical Uses*

#### *(with suitable topcoats)*

INDUSTRIAL - Structural steel, machinery, pipes and tank exteriors in paper mills, oil refineries, power plants, chemical process and waste treatment plants, for both immersion and non immersion service.

MARINE - Decks, hulls, bottoms and superstructures of ships, barges and workboats. Piers offshore platforms and related structures. Interiors of cargo holds and tanks, bilges and ballast tanks.

NUCLEAR - In nuclear power plants including containment, on areas subjected to radiation and decontamination and waste handling facilities.

Your **Khemix** representative will be pleased to help you evaluate your particular protection needs and make correct recommendations to suit your specific requirements. Refer also to individual topcoats for more detailed information on complete primer/topcoat systems.

### *Outstanding Characteristics*

With the proper topcoat, the primer withstands splash or spillage of water, solvents, chemicals and petroleum products, but also immersion in fresh water or seawater salt solutions and sour crude.

Suitable topcoats are **Khemix** epoxies, coaltar epoxies, acrylics, alkyds and polyurethane coatings.

### *Approvals and Certificates*

**Khemix 471** is widely specified for nuclear service. It meets requirements of the American National Standards Institute (ANSI) and other engineering specifications.

Approved primer for Aramco specification APCS 1B. With suitable primer and topcoat, complies with the following standards:

- Norsok M-CR-501 (coating system 1);
- ISO 12944 (class C5M);
- Shell specification ES/011 Vol. 2 Rev. 7.

Approved primer for miscellaneous fire proofings.

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### Physical Data

Finish	Flat	
Color	Oxide Red	
Components	2	
Curing mechanism	Solvent release and reaction between components	
Volume solids (calculated)	50% (ASTM-D2697, modified)*	
VOC**		
EC SED 1999/13/EC	358g/kg (467 g/l)	
UK PG6/23(92) Appendix 3.	435 g/l (3.6 lbs/gal)	
Dry film thickness	50 µm per coat	
Number of coats	1	
Calculated coverage	10.2 m <sup>2</sup> /l at 50 µm	
Allow for application losses, surface irregularities, etc.		
Specific gravities	1.39 kg/l (mixed product)	
Flash point (Closed Cup)	°C	°F
Resin	22	72
Cure	30	86
<b>Khemix 065</b>	26	78.8

\* Volume solid is measured in accordance with ASTM D2697 modified. Slight variation ± 3% may occur due to colour and testing variances.

\*\* VOC figures are quoted according to both the EC directive 1999/13/EC which are theoretically calculated figures and the UK PG6/23(92) Appendix 3 which are practically determined figures.

### Surface Preparation - Primer

**STEEL** - Blast in accordance with Sa 2½, ISO 8501-1 or Steel Structures Painting Council Sp-10. NOTE: blast to achieve a 25 to 50 µm profile as determined with *Testex* Tape or similar instrument. Remove abrasive residues and dust from surface.

**DIMETCOTE** - Surface must be clean and dry. Remove any contamination. Refer to application instructions for the particular Dimetcote types for any other special topcoating requirements. Remove oil or grease with a neutral detergent or emulsion cleaner (like oil cleaner).

**NEWLY GALVANISED SURFACES** - Remove any oil or soap film with oil cleaner, treat surface in accordance with instructions for zinc treatment, A lightly blast with fine abrasive is preferred.

**WEATHERED GALVANISED SURFACES** - If galvanising has been exposed to exterior weathering for 6 months or more, remove zinc corrosion products by mechanical means (likes power sander or a light blast). Remove oil or grease with oil cleaner.

**ALUMINIUM SURFACES** - Remove oil or grease with oil cleaner. Lightly blast with fine abrasive or apply chromate - type conversion treatment, such as Alodine 1200, by Henkel..

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**IMPORTANT** – Apply primer as soon as possible after surface preparation to prevent any contamination. Do not leave blasted steel uncoated overnight. In case of contamination remove contaminants. Spot blast steel if needed.

### *Application Equipment*

The following equipment is listed as a guide and suitable equipment from other manufactures may be used. Adjustments of pressure and change of tip size may be needed to obtain the proper spray characteristics.

**AIRLESS SPRAY** - Standard airless spray equipment, such as Graco, DeVibiss, Nordson-Bede, Spee-Flo or others having a fluid tip with a 0.38 to 0.53mm (0.015 to 0.021 inch) orifice.

**CONVENTIONAL SPRAY** - Industrial equipment such as DeVilbiss MBC or JGA gun with 78 or 765 air cap and “E” fluid tip and heavy mastic spring or Binks No. 18 or 62 with a 66x63 PB nozzle setup. Separate air and fluid pressure regulators, mechanical pot agitator and a moisture and oil trap in the main air supply line are recommended.

**MIXED** - Use a power mixer powered by an air motor or an explosion proof electric motor.

### *Application Data*

Substrate	blasted steel, primed steel, aluminium and Dimetcote	
Application methods	Airless or conventional spray, brush or roller	
Environmental Conditions (during application)		
Air temperature	5 to 50°C	41 - 122°F
Surface temperature	5 to 60°C	41 - 140°F

To prevent moisture condensation during application, surface temperature must be at least 3°C/5°F above the dew point. Minimum temperature for satisfactory cure is 10°C/50°F. Never apply coating under adverse environment conditions. Ensure good ventilation when applied in confined areas to assist evaporation and elimination of solvents.

Potlife (at 20°C)

Potlife and drying time are dependent on temperature and quantities mixed.

Drying Times (in hours at 50 µm and 18 to 27°C (65 - 81°F))

	Minimum	Maximum
dry to touch	2 - 3	not applicable
dry to handle		
(dry to through)	4	not applicable
Dry to recoat	4	

Topcoat

Drying and curing times are dependent on air and steel temperature, applied film thickness, ventilation and other environmental conditions. Times are proportionally shorter at higher temperature and longer at lower temperatures.



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to 40°C (41 - 104°F).

### *Cautions*

This product is flammable. Keep away from heat and open flame. Keep container closed. Use with adequate ventilation. Avoid prolonged and repeated contact with skin. If used in confined areas, observe the following precautions to prevent hazards of fire or explosion or damage to health:

1. Circulate adequate fresh air continuously during application and drying;
2. Use fresh air masks and explosion proof equipment;
3. Prohibit all flames, sparks, welding and smoking.

Do not empty into drains. Take precautionary measures against static discharges. For specific information on hazardous ingredients, required ventilation, possible consequences of contact, exposure and safety measures see Safety Data Sheet.

### *Safety*

Since improper use and handling can be hazardous to health and cause of fire or explosion, safety precautions included with application instructions must be observed during all storage, handling, use and drying periods.

### *Warranty*

**Khemix** warrants its products to be free from defects in material and workmanship. **Khemix** sole obligations and Buyer's exclusive remedy in connection with the products shall be limited, at **Khemix's** option, to either replacement of products not conforming this warranty or credit to Buyer's account in the invoiced amount of the non-conforming products. Any claim under this warranty must be made by Buyer to **Khemix** in writing within five (5) days of Buyer's discovery of the claimed defect, but in no event than the expiration of the applicable shelf life, or one year from the delivery date, whichever is earlier. Buyer's failure to notify **Khemix** of such non-conformance as required herein shall bar Buyer from recovery under this warranty.

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Khemix's liability on any claim of any kind, including claims based upon Khemix's negligence or strict liability, for any loss or damage arising out of, connected with, or resulting from the use of the products, shall in no case exceed the purchase price allocable to the products or part thereof which give rise to the claim. In no event shall Khemix be liable for consequential or incidental damages.

Due to Khemix's policy of continuous product improvement, the information contained in this Product Data/Application Instructions sheet is subject to change without notice. It is the Buyer's responsibility to check that this issue is current prior to using the product. For the most up-to-date Product Data/Application Instructions always refer to Khemix Performance Coatings & Finishes.

To avoid any confusion that may arise through translation into other languages, that English version of the Product Data/Application Instructions will be the governing literature and must be referred to in case of deviations with product literature in other languages.

### *Condition of Sale*

All our transactions are subject to our Terms and Conditions of Sale.