



# DURIPAL

## PENETRATING SURFACE HARDENER\CONDITIONER

For Cementitious Surfaces

### DURIPAL – Product Data Sheet

#### Inorganic Liquid Polymer

##### Description:

A clear, odorless, inorganic liquid polymer for impregnating and hardening the surface of cementitious building products. The material acts by binding the loose lime particles of the mass, converting them into calcium silicate, which is not soluble in water, thus minimizing and reducing efflorescence. **DURIPAL** impregnates the surface, sealing small holes and hairline cracks, but does not fill holes or cracks.

##### Uses:

To produce a hard, protective surface on any absorbent cementitious building material such as concrete, concrete masonry units, cement plaster, limestone, cast and natural stone. **DURIPAL** is also used to prepare brick manholes as part of the **DRYCON** System for Manhole Restoration. For other use on brick surfaces, contact IPA Systems Engineering Department for specific application instructions or limitations.

Will provide an excellent termite resistance when applied to **exposed** wood surfaces.

Excellent surface conditioner and bond improver for areas to be repaired by overlay or patch. **DURIPAL** is not a bond primer.

##### Advantages:

- ◆ Ideal protection for outside walls, counteracting the effects of corrosive atmospheres, chemicals, salt spray and vehicle exhaust fumes.
- ◆ Imparts hardness and abrasion resistance to concrete.
- ◆ Protects concrete highways, driveways, parking garage floors and pavements from reactions with concentrated salt solutions that are frequently used to prevent icing.
- ◆ Makes concrete surfaces dust free.
- ◆ Reduces and minimizes efflorescence.
- ◆ Protects old concrete and masonry, particularly after it has been cleaned.
- ◆ Is a water soluble solution that is applied directly to dry surfaces without priming.
- ◆ The correct use of **DURIPAL** does not affect the appearance of the treated surface. It will not leave a glazed appearance.
- ◆ Excellent fire resistance characteristics – resists heat.
- ◆ **DURIPAL** is unaffected by ultraviolet light and will not darken by exposure to sunlight.
- ◆ As an inorganic material, **DURIPAL** is unaffected by hydrocarbons. This permits treated surfaces to be cleaned by aggressive solvents, such as methyl ethyl ketone (MEK), if required.

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### TECHNICAL DATA

Color:	Clear
Odor:	None
Flash Point:	None
Solids by weight:	12.8%
Toxicity:	None in normal use
Strength:	The use of <b>DURIPAL</b> hardens surfaces making them highly resistant to mechanical wear and abrasion.
Fire:	<b>DURIPAL</b> enhances the resistance of the treated material to heat and fire.
Gases:	Surfaces impregnated with <b>DURIPAL</b> remain permeable to gases and vapor.
Liquids:	<b>DURIPAL</b> reduces the surface permeability of porous materials such as limestone or sandstone and air-entrained concrete, and forms a water repellent barrier. Once it has penetrated into the masonry surface, <b>DURIPAL</b> reacts with free lime to form calcium silicate. It also reacts with other soluble salts and lime, minimizing and reducing efflorescence.
Chemical:	Treated surfaces are protected against aggressive atmospheres, chemical pollutants, vehicle exhaust and salt spray. Protects concrete roadways from the destructive effects of de-icing salt.
Durability:	<b>DURIPAL</b> is inorganic and will not degrade in use.
Packaging:	Available in 1 gallon (3.79 L), 5 gallon (18.93 L) and 55 gallon (208.18 L) containers.
Coverage:	Surface absorption of <b>DURIPAL</b> can vary from 100 to 200 square feet per gallon (2.5 to 5 m <sup>2</sup> per L) depending upon the porosity of the surface treated.
Applicable Standards:	German DIN 1045 – copies of test results are available upon request.

### INSTALLATION:

**Surface Preparation:** Surface to be treated must be cleaned of any film, scale, loose material, oils, grease, dust, dirt, laitance, efflorescence, oil-based curing membranes or form release agents, paint, unsound concrete and any other material that will prevent penetration. Surface preparation may be accomplished by sand blast, water blast or chemical methods.

**Application:** Apply **DURIPAL** to cool surfaces whenever possible. Apply either with spray, brush or roller. It is important that only as much **DURIPAL** as the surface will readily absorb is applied. After the first application of **DURIPAL** has dried, install a second application to ensure a complete coverage and absorption. Do not apply more **DURIPAL** than the surface can absorb. Remove any excess solution before it crystallizes on the surface. To prevent formation of a white film, limit application so that no free **DURIPAL**, characterized by a shiny appearance, remains on the treated surface.

**Clean-Up:** Clean equipment with water and a mild detergent.

**Precautions:** All glass surfaces must be protected from contact with **DURIPAL** to prevent etching. Must be applied to a clean, dry, sound surface. **DURIPAL** cannot penetrate materials saturated with water. However, if saturated surfaces are permitted to dry out they may be successfully treated. Saturated surfaces or surfaces which do not absorb water by capillary action will not absorb **DURIPAL**. To prevent formation of a white film, limit application so that no free **DURIPAL**, characterized by a shiny or slick appearance, remains on the treated surface. This is especially important on decorative colored brick. Avoid applying **DURIPAL** to over 100°F (38° C) surfaces. **DURIPAL** reacts more quickly in the presence of heat. Surfaces heated by the sun must not be treated while still hot or the **DURIPAL** will polymerize before penetrating. **DURIPAL** must be stored at temperatures above freezing.

### **CAUTION – FOR INDUSTRIAL USE ONLY:**

In accordance with federal regulations, do not apply unless Material Safety Data Sheet (MSDS) is available on-site. Consult MSDS before using this product. Product is highly alkaline. If contact with eyes or skin occurs, flush immediately with copious amounts of water and contact a physician. If swallowed, induce vomiting and CONTACT A PHYSICIAN IMMEDIATELY.

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### WARRANTY

This product is warranted and guaranteed to be of good quality. Manufacturer, as its sole and exclusive liability hereunder, will replace material if proved defective. THIS WARRANTY AND GUARANTEE ARE EXPRESSLY IN LIEU OF ALL OTHERS, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND MAY NOT BE EXTENDED BY REPRESENTATIVES OR ANY PERSONS, WRITTEN SALES INFORMATION, OR DRAWINGS IN ANY MANNER WHATSOEVER. While the manufacturer recommends uses for the product based on tests believed reliable, no warranties, express or implied, or guarantee can be given as to particular methods of use or application, nor can performance be warranted, expressly or impliedly, or guaranteed under special conditions. Distributors, salespersons or company representatives are NOT authorized to extend or vary any warranties or guarantees beyond those outlined herein nor may the manufacturer's or seller's limitation of liability be waived or altered in any manner whatsoever.

