



DRYCON Crystalline Waterproofing Kit

To WATERPROOF concrete or masonry under hydrostatic pressure

DRYCON – Product Data Sheet Cementitious Crystalline Waterproofing Kit

Description:

DRYCON is a waterproofing kit, containing portland cement, finely graded mineral fillers, and chemical additives. The contents of the kit are mixed with a measured amount of water to produce a creamy paste, or slurry. The slurry is brushed or sprayed into the surface of the masonry or concrete. The surface to be treated must be dampened so that the active chemicals in **DRYCON** will be drawn into the pores.

DRYCON is a prepackaged, chemically active cementitious composition designed to protect masonry or concrete from water induced chemical attack, and to stop the passage of water through the material. A two coat application of **DRYCON** is suitable for most interior below grade waterproofing applications. Two coats of **DRYCON** will withstand hydrostatic pressures up to 7 psi (16 ft. of water, 4.9 m), while three coats provide protection to 45 psi (103.8 ft, 31.6 m).

DRYCON is not a paint. Although **DRYCON** forms a decorative, non-flammable, inorganic surface for masonry or concrete, and although it is applied with a brush or spray machine, it is not a paint.

Uses:

DRYCON is used to prevent seepage of water through masonry/concrete under pressure.

Advantages:

Double waterproofing protection by chemically sealing the internal structure of the masonry or concrete as well as sealing the surface with a dense, watertight cement coating.

Chemically interacts beneath the surface to neutralize salts that cause efflorescence.

Cementitious material, offering indefinite life expectancy and superior adhesion characteristics.

Integrates with the substrate and seals so effectively that seepage can be stopped through interior application, eliminating costly excavation and backfill operations.

DRYCON reacts chemically with the soluble salts found in all cementitious building materials. **DRYCON** chemically combines with these salts to form insoluble crystals, thereby attacking efflorescence at its source.

A second chemical reaction occurs between the **DRYCON** paste and additives, causing the paste to harden into a dense plaster. In this way, an additional water barrier is created as a coating at the surface of the masonry or concrete.

Non-flammable and can be applied without specialized equipment or special skills.

IPA SYSTEMS, INC.
QUALITY PRODUCTS FOR THE
CONCRETE/MASONRY REPAIR
INDUSTRY

2745 North Amber Street
Philadelphia, PA. 19134

Phone: 800-523-3834
Fax: 215-425-6234
info@ipasystems.com

Visit Our Website!
www.ipasystems.com

DRYCON Product Data Sheet Page 2 of 3

TECHNICAL DATA

DRYCON meets requirements for use in potable water applications: NSF Standard 61

Shelf Life: One year in unopened bag. Requires dry storage

Color: Gray and white

Physical Properties:

Testing: **DRYCON** has been tested by using a modified hydrostatic test method ASTM C 497. Porous pipe was lightly sandblasted to remove dirt and contamination. The pipe wall thickness was 1.5 inches (3.8 cm). Pipe was thoroughly dampened immediately prior to application of the first **DRYCON** layer. **DRYCON** was brush applied to a thickness of 1/16 inch (1.6 mm). Material was mixed to slurry consistency and brushed firmly into the substrate. The second coat (White) was applied 1/16 inch (1.6 mm) thick to predampened pipe within 24 hours.

An epoxy gel sealant was applied to the bare ends of the coated pipe. This section was immediately set into the cell restraints and bolts tightened to firm pipe within. Assembly was allowed to cure for 72 hours at 65°F (18.3°C).

Water was introduced into the cell bottom and completely filled the pipe, so that water discharged from the top valve (vent). The air valve was then opened and increased to 10 psi (69.0 kPa) over one hour. Pressure was increased at the rate of 10 psi (69.0 kPa) per day thereafter.

Results: No leaks in **DRYCON** at 25 psi (172.4 kPa), seal failure in pressure cell. Additional ASTM C 497 testing indicates repairs to concrete pipe with no leakage to 30 psi (206.9 kPa) water pressure.

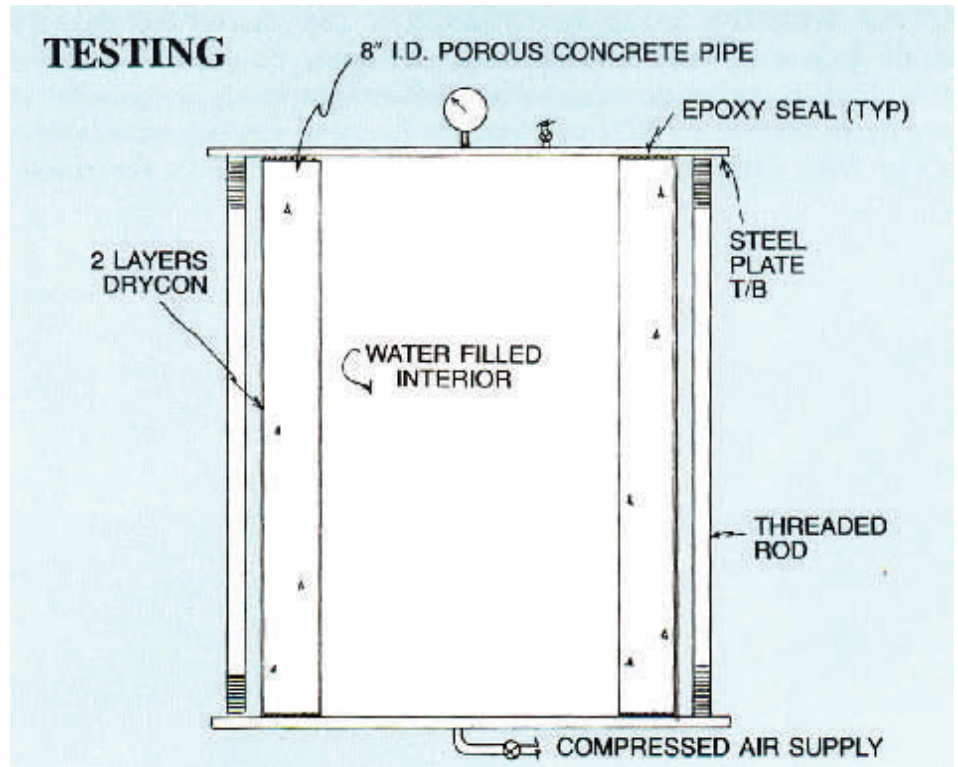
Yield: Coverage is an estimate only, actual coverage will vary depending upon surface roughness and porosity. First coat coverage is usually less than 100 square feet (9.3 m²) per kit, while the second coat is greater. Average coverage for the two coat process is 100 square feet (9.3 m²) per kit per coat of **DRYCON**.

Surface Preparation:

Surface to be repaired must be cleaned of any film, scale, loose material, oils, grease and any other foreign material that will prohibit bond. Surface preparation may be accomplished by accepted water blast, mechanical or chemical methods. If acid washing is used, surface must be repeatedly flushed with water to remove all trace of acid. Test with litmus paper to confirm neutral or alkaline conditions. Thoroughly wet surface then allow free water to run off.

DRYCON must be applied while surface is still damp. Failure to prepare surface will prevent successful development of material physical characteristics and will negate guarantee.

DRYCON must not be applied to surfaces from which water is seeping. Cracks, voids, sizable holes, and localized points of leakage must be sealed prior to treatment with **DRYCON**. Do not attempt to bridge cracks in excess of 1/16th inch width. Consult sales engineer or product application guide for other **DRYCON** system product recommendations and suggested repair procedures.



DRYCON Product Data Sheet Page 3 of 3

Mixing & Application Instructions:

1. Open **DRYCON** kit. Thoroughly shake enclosed plastic bottle until solid matter has liquefied and emulsion is uniform. Mix contents of plastic bottle with 5 1/2 quarts (5.2 L) clean water for each 50 lb. (22.7 kg) Kit. Rinse bottle with mixing water to remove all of the additive.
2. Slowly mix the powdered materials into the water and additive solution. Mix thoroughly to achieve a creamy slurry consistency.
3. Apply slurry within one hour of mixing.
4. Saturate surface with water immediately prior to application of **DRYCON** and allow excess water to run off. This is extremely important: **DRYCON** will not give desired result unless masonry surface is saturated with water.
5. Apply **DRYCON by brush** working material into surface pores. If the **DRYCON** seems too thick for efficient application, add a small amount of water (up to 1/2 quart (0.5 L) per kit) to the mix.
6. Material may alternatively be spray applied (using peristaltic or dual diaphragm pumps), but must be worked into pores with a brush. Spraying tends to bridge pores and hairline cracks. **DRYCON** must be worked into the surface for proper result. Apply DRYCON at 1/16" (1.6 mm) thickness per coat..
7. **DRYCON** treatment is normally a two-coat process. Second coat may be applied as soon as first coat has set, (usually about 1 1/2 hours). When unusually great hydrostatic pressures are anticipated, a third coat may be necessary. Two coats will prevent seepage up to 7 psi (16 ft. of water, 4.9 m). Three coats provide protection to 45 psi (103.8 ft. of water, 31.6 m).

Curing:

Curing of **DRYCON** is not necessary in closed underground structures such as manholes and vaults unless strong drafts exist. **DRYCON** must be cured if exposed to strong sunlight, hot or windy conditions. Water mist periodically applied under draped poly or wet burlap will usually provide the best curing conditions.

Clean-up:

Cleanup must be done immediately due to the high bonding characteristics of **DRYCON**. Clean equipment with water.

Packaging:

DRYCON is packaged in 50 lb. (22.7 kg) bags as a kit, and includes a plastic pint (0.5 L) container of IPA Systems' **IPANEX** complex alkaline earth silicate admixture.

Limitations:

Do not install **DRYCON** unless substrate and air temperature is at least 40°F (4.4°C) and rising for the next 48 hours. Do not apply to a frozen surface. **DRYCON** will not bridge cracks greater than 1/16 inch (1.6 mm). Material cannot be installed on surfaces that are actively seeping water. Associated IPA products are designed for stopping leakage in localized areas (**IPANEX - R** or **OCTOPLUG PLUS**). Consult application guide or sales engineer for product recommendations and repair procedures. **DRYCON** is designed for application on concrete or masonry materials. **DRYCON** must be stored at above freezing temperatures.

CAUTION – FOR INDUSTRIAL USE ONLY:

Freshly mixed cement, mortar, grout, or concrete may cause minor skin irritation. Avoid direct contact where possible and wash exposed skin areas promptly with water. If any of the cementitious material gets into the eyes, rinse immediately and repeatedly with water. If irritation persists, obtain medical assistance.

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.

