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Epoxy.com Product #830

MOISTURE VAPOR TREATMENT

DESCRIPTION

Epoxy.com Product #830 is a two component modified epoxy system designed to seal concrete and reduce moisture vapor transmission prior to applying finished flooring. Epoxy.com Product #830 has proven to reduce moisture vapor emissions and be resistant to damage from high alkalinity. Epoxy.com Product #830 is an environmentally friendly material containing no hydrocarbons or other solvents making it zero (0) VOC.

ADVANTAGES

- Reduces moisture vapor transmission rate through concrete.
- Provides excellent resistance to highly alkaline conditions.
- Gives excellent bond to properly prepared concrete.
- Has convenient 2:1 mixing ratio.
- High physical properties.
- Can be rapidly surfaced with a variety of finished flooring materials.

CONSIDERATIONS

- Substrate temperature must be a minimum of 55oF before, during and 72 hours after installation.
- Must have effective vapor barrier directly under substrate.
- For use only on properly prepared surfaces; must be free of dirt, waxes, curing agents and other foreign materials.
- Does not function as a crack reflective membrane.

TYPICAL USES

- Epoxy.com Product #830 is designed as a negative side moisture vapor retarder to reduce moisture vapor transmission through concrete.
- Epoxy.com Product #830 can also be an effective primer for fast recoat under Epoxy.com flooring systems.

COLOR

Translucent Red

COMPOSITION

Epoxy.com Product #830 is a highly cross-linked, alkaline resistant epoxy composition.

TYPICAL PROPERTIES & PERFORMANCE DATA

Tensile Strength -ASTM-D-638 10,400 psi
Tensile Elongation -ASTM-D-638 2 - 4%

Modulus of Elasticity -ASTM-D-638 2500 psi

400-500 psi

Bond Strength to Concrete -ASTM-D-4541

100% Concrete Failure

Permeability - ASTM E-96

1Coat (10-12 mils) - 0.09 Perms
2 Coats (20 mils total) - 0.04 Perms

Water Vapor Transmission -Grams/hr/sq. meter ASTM-E-96 1 coat - 0.023

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Alkaline Resistance ASTM-D-1308

7 day Immersion

10% Sodium Hydroxide - unaffected
50% Sodium Hydroxide - unaffected
10% Sodium Hydroxide - unaffected

2 coats - 0.012

14 day Immersion 50% Sodium Hydroxide - unaffected 50% Sodium Hydroxide - unaffected

Hardness Shore D - ASTM-D-2240 85
VOC Zero
Water Absorption - ASTM-D-570 nil

Mix Ratio 2:1 by Volume
Pot Life 25-35 Minutes
Recoat Time Minimum 4-6 Hrs
Maximum 72 Hrs.

APPLICATION

SURFACE PREPARATION

Surface preparation is the most critical portion of any successful resinous flooring system. All substrates must be properly prepared as outlined in Epoxy.com <u>Surface Preparation Guide</u>. Work must be performed by trained or experienced contractors or maintenance personnel.

Epoxy.com Product #830 is a moisture vapor suppressant for concrete substrates. Surface and air temperature must be a minimum of 55oF during installation and cure.

Concrete surface must be free of dirt, waxes, curing agents, any other foreign materials, and must be structurally sound. Surfaces should be vacuum shot blasted to "open" surface porosity or by diamond grinding with coarse stones. Surface profile must be a minimum CSP-4-CSP-5 profile according to International Concrete Repair Institute Guideline #03732.

Concrete surfaces should be tested for moisture transmission according to ASTM-F-2170 (Relative Humidity in Concrete Floor Slabs using in situ probes) and ASTM-F-1869 (Measuring Moisture Vapor Emission Rate of Concrete Subfloor using Anhydrous Calcium Chloride).

Epoxy.com Product #830 may be applied in a single coat of 12 mils (130 sq.ft. per gallon) when relative humidity readings are below 95% or MVT readings are below 8# per 1000 sq. ft./24 hrs. Higher readings require consultation with Epoxy.com Technical Services and may require a second coat of Epoxy.com Product #830 of 10 mils (160 sq. ft. per gallon).

Fill all cracks and non-moving joints with Epoxy.com Product #830. If material continues to disappear into the void, add fumed silica to get a gel consistency and "putty" into the void to completely seal. Detailing with Epoxy.com Product #32 membrane and glass mesh is done after the Epoxy.com Product #830 application.

MIXING & SPREADING

Stir resin and hardener separately prior to mixing. Mix ratio is 2 parts resin Part A to one part hardener Part B. Pour together and mix thoroughly for 60-90 seconds. Apply at the rate of 120-130 sq.ft./gal. Apply extra material to areas showing penetration and soaking into the concrete. All areas should show a uniform gloss and a uniform 12 mils minimum thickness.

Maximum recoat time for Epoxy.com Product #830 is 72 hours. It may be advantageous to prime with Epoxy.com Product #899 primer or a second coat of Epoxy.com Product #830 at 200-250/sq. ft. and lightly broadcast 30 mesh silica to help achieve a good mechanical bond.

For areas showing moisture vapor greater than 8#/1000sq.ft/24 hours or humidity readings greater than 95% consult with Epoxy.com Technical Department.

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Proper mixing and installation is critical to the optimal success of all product. See <u>Installation Tips</u>, <u>Techdata</u>, & <u>MSDS</u> for more details on our products. Be sure to contact us with any questions and/or concerns that you have.

For more information please contact:

Epoxy.comA Division of Epoxy Systems, Inc 20774 W. Pennsylvania Ave. Dunnellon, Florida 34431 Hundreds of Systems, Since 1980 - Over 33 years Florida & Vermont

USA

Customer and Technical Support Hours: 9AM-4PM Eastern Time (6AM-1PM Pacific Time). Closed 12 Noon-1PM Eastern Time for Lunch

321-206-1833 Customer Service - Ordering and Order Status Katey Fontaine, VP - Customer Service Director sales@epoxy.com

Technical Support
352-533-2167 Norm Lambert, President - Technical Support Director
info@epoxy.com

352-489-1666 Accounting and Administration Debby Lambert, CEO, and CFO office@epoxy.com

352-489-1625 Fax line to all Departments



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