



# Epoxy Systems'<sup>TM</sup> Product #415

## Elastomeric Polyurethane Coating

### **DESCRIPTION:**

EPOXYSYSTEMS' PRODUCT #415 is a liquid applied, single component, moisture-cured polyurethane. It is the major component of all EPOXYSYSTEMS' deck coating systems. Composition: Liquid-applied, single-component, moisture-cured, polyurethane elastomer. All materials shall be delivered to the jobsite in unopened containers clearly marked and labeled.

### **BASIC USES:**

EPOXYSYSTEMS' PRODUCT #415 is used to waterproof concrete and plywood decks which are subsequently covered with outdoor carpeting, tile, or wood decking. The product is recommended for all applications which require the waterproof surface to be painted, where a bitumen-extended polyurethane would not be suitable. EPOXYSYSTEMS' PRODUCT #415 is designed as a high performance elastomeric covering over spray applied, polyurethane foam roofs. EPOXYSYSTEMS' PRODUCT #415 is available in a special thixotropic consistency for use over irregular surfaces such as foam roofs. PRODUCT #415 must be coated with EPOXYSYSTEMS' PRODUCT #416 if it is used over foam insulated roofs.

### **LIMITATIONS:**

Containers that have been opened must be used up within one or two days since it is a moisture-reactive material. It sets up when exposed to air. All surfaces must be completely free of foreign matter, and primed with EPOXYSYSTEMS' PRODUCT #890 PRIMER, where necessary.

### **SURFACE PREPARATION:**

All surfaces which are to be coated with EPOXYSYSTEMS' PRODUCT #415 must be free of contamination such as curing compounds, concrete hardeners, bond breakers, paint, etc. All surfaces must be dry, having a maximum water content of 20%. We recommend water-curing concrete instead of using concrete curing compounds. Only exterior grade plywood should be used. Concrete should be cleaned by sandblasting, or other abrasive method. Allow a minimum drying time of 72 hours. Except for non-moving shrinkage cracks, all other cracks and joints must be sealed with EPOXYSYSTEMS' PRODUCT #905. All surfaces, where necessary, must be primed with EPOXYSYSTEMS' #890 PRIMER prior to application of the coating system at a rate of 350 square feet per gallon (8.6 m<sup>2</sup>/gallon), except for plywood in good condition.

All seams between plywood sheets and those between metal flashing and the plywood deck must be reinforced by imbedding a 2 inch (5 cm) wide strip of glass cloth tape in wet EPOXYSYSTEMS' PRODUCT #415, which is brushed evenly over the seam in a width of about 3 inches (7.6 cm) and a thickness of about 20 mils (0.5 mm) wet. The application of EPOXYSYSTEMS' PRODUCT #415 can subsequently be made immediately over the entire area, including the taped areas. Cracks in concrete must be treated in the same way. Where EPOXYSYSTEMS' PRODUCT #415 is used as a protective coating on polyurethane foam roofs, it must be applied within 8 hours from the time the foam is installed.

### **APPLICATION:**

EPOXYSYSTEMS' PRODUCT #415 shall be applied at a rate of 60 square feet per gallon (1.5 m<sup>2</sup>/liter) percoat resulting in a 25 dry mil (0.6 mm) thickness. Most applications require two coats at this coverage, allowing a 24 hour cure time between coats. EPOXYSYSTEMS' #415 can be applied by airless spray equipment, rollers, or squeegees. Airless spray equipment must have a minimum of 30 to 1 ratio. Permit a 48 hour cure time after the final coat is applied before continuing with tile setting, carpet laying, back filling, or any other operations.

**Shelf Life:** 6 months at 77°F (25°C), unopened.

**Color:** Concrete Grey, Tan

**Sizes:** Available in 1 gallon cans, 5-gallon pails and 55-gallon drums. Weighs 9.8 lbs. per gallon (4.45 kg/gallon).

### PHYSICAL PROPERTIES:

Property	Measuring Standard and Conditions	Results
Hardness	Shore "A" A.S.T.M. D-2240	55
Ultimate Tensile Strength	A.S.T.M. D-412	975 psi (6.7 N/mm <sup>2</sup> )
Ultimate Elongation	A.S.T.M. D-412	825%
Adhesive Peel Strength on Primed Concrete	A.S.T.M. D-903	90 P.L.I.
Peel Strength on Plywood	A.S.T.M. D-903	95 P.L.I. cohesive failure
Solids Content		90% by weight
Water Absorption	A.S.T.M. D-471	<1% by weight
Temperature Service Range Viscosity at 77°F (25°C)	Brookfield	-50° F to +200° F (-45°C to 93.3°C) 150 poises
Moisture Vapor Transmission Cured 7 days at 77°F(25°C) 50% RH	A.S.T.M.E96-66 Procedure (a)15 mu (0.015") dry film (0.38 mm) (b)30 mu (0.30") dry film (0.76 mm)	3.7 perms ± 0.6 2.4 perms ± 0.4
Abrasion Resistance	A.S.T.M. C-501-62T 30 mil dry film on 4" x 4" (10 cmx 10cm) metal, CS-17 wheel, 1000 rev, with 1000 grams weight	No change in weight
Tear Resistance	A.S.T.M. 0-1004-66	220 pounds per linear inch
Perpendicular Bond-strength on Plywood		185 psi plywood failure
V.O.C. Content		165 gr/liter

### PRODUCT WARRANTY:

All products proven to be defective in manufacture will be replaced at no charge. Since the use of these products is beyond our control we cannot accept damage in excess of the purchase price of these products.

### MAINTENANCE:

If EPOXYSYSTEMS' PRODUCT #415 is damaged, it can be repaired by cleaning the surface with M.E.K. and recoating it with EPOXYSYSTEMS' PRODUCT #415.

### FOR INDUSTRIAL USE ONLY / KEEP AWAY FROM CHILDREN

For more information about this product or any other Epoxy Systems™ product, please contact:

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