# OKON Plugger™

**WATER REPELLENT SEALER**

## DESCRIPTION AND USES

OKON PLUGGER is water base, low VOC, acrylic microemulsion specifically designed to protect both new and existing porous concrete surfaces. Its special blend of 100% acrylic resin and unique water-repellent provides multiple benefits especially important when protecting very porous CMU:

- The acrylic resin reduces the pore size of the substrate thereby reducing the capillary action that draws water into the substrate.
- The proprietary water repellent lowers the surface tensions and further counteracts the capillary pull.

## PRODUCTS

| SKU | Container Size |
|---|---|
| OK-950 | 5-Gallon |
| OK-955 | Drum |

## FEATURES

- Water based Acrylic Micro-Emulsions
- Non-yellowing
- Recoatable
- Paintable
- Resist high alkalinity
- Resist chloride salts
- Resist blushing

## PRODUCT APPLICATION

**SURFACE PREPARATION**

OKON PLUGGER can be applied to most *porous* concrete surfaces that are unsealed, clean (free of dirt, waxes and oils) and sound. New concrete must be cured for 28 days prior to coating.

Unsealed: PLUGGER must be able to penetrate surface. Test the openness of the substrate by sprinkling with water. If the surface turns dark with the water PLUGGER can be applied.

Clean: Clean surface using oil-free, compressed air to remove loose and foreign matter that could interfere with application or performance of coating. Pressure wash surface to remove dust, sand or other foreign matter. Allow pressure washed surfaces to dry three days prior to coating. Remove exterior mildew with JOMAX® or equivalent. Remove efflorescence with sulfamic or dilute muriatic acid. Spot cleaning with acid may cause uneven porosity and blotchy appearance. Rinse the surface thoroughly after chemical cleaning**.** Un-rinsed acid salts may cause whitish-blotches to appear. Surface can be slightly damp at time of application **Sound**: Surface of concrete and mortar joints must be hard and firm - not loose or sandy. The surface is un-sound if it can be scraped or gouged with a flat screwdriver. Unsound mortar

## PRODUCT APPLICATION (cont.)

or deteriorated concrete should be removed and repaired prior to coating. Cracks and joints must be sealed with flexible sealant. Parapet walls must be capped and the backside sealed with a waterproofing membrane.

**COVERAGE**

The rate of application will vary depending on:

A. The weight of the block – A minimum of two coats are Required to adequately seal lightweight and some medium weight block.
B. The block mix - Integral ad-mixtures like W.R. Grace Dry-Block®, help the block drain and are required in Light-weight block to receive a 5-year Warranty.
C. The total surface area to be covered is greatly affected by the face-style and mortar joints of the block. Split face block has approximately 30% more surface area than smooth block and fluted block can have two to four times more surface area than the two-dimensional surface area.

**APPLICATION**

PLUGGER is best applied by airless spray. Use a small to medium size airless pump (1/3– 2/3 gpm) at 500 psi and a 0.031”-.0.035” tip. Protect adjacent and underlying surfaces from over spray and rundown**.** The surface temperature at time of application and for four hours after application is very important. Application to cold (<50°F) or to hot surfaces (>100°F) will reduce the durability of the material. Surfaces temperatures >100° F can be cooled by misting with water immediately prior to application. PLUGGER can be applied to damp but not wet surfaces. The surface is wet if moisture transfers to your hand when you touch it or if it glistens in appearance.

Vertical Surfaces: Apply from bottom of wall up using low pressure airless spray. Flood surface until material runs down 6 to 8 inches below spray pattern before being absorbed. Pick up runs or drips with a dry roller or brush. Overlap spray pattern to avoid holidays.

Horizontal Surfaces: PLUGGER should not be used on horizontal traffic areas. Horizontal surfaces like window sills or railings must be sloped for drainage. Flood surface with sufficient material so the surface remains wet for several minutes before material is absorbed. If surface pooling or puddling appears, back-roll, brush, wipe up, or broom away excess material.

Recoat: PLUGGER can be recoated after the initial coat is dry, clear and colorless.

## PRODUCT APPLICATION (cont.)

**POROSITY TEST**

The porosity of a substrate can be measured using a RILEM tube per Test Method 11.4. The tube is attached to the substrate with putty and filled with water. The time it takes the water to drain from the tube indicates the porosity of the substrate and indicates whether additional applications of water repellent are justified. The substrate must be dry when conducting the test. The RILEM tube can be used to measure the otherwise is not relevant on glazed brick or cast concrete. A RILEM tube test resulting in no water loss after 3 minutes is necessary in order for a project to qualify for a 5 Year Extended Warranty.

RILEM Test 11.4 Guideline

| Condition | Water Loss (mL) | Rating (3 minute test) |
|---|---|---|
| Uncoated | 5 | Very Porous |
| | 2 | Porous |
| | 5 | Dense |
| Coated | 3 | Poor Protection |
| | 5 | Good Protection |
| | 0 | Excellent Protection |

**CLEAN UP**

Clean hands and tools with soapy water. Drips and runs that have dried may be removed using a strong solvent within 24 hours after application. After that time sanding may be necessary.

**LIMITATIONS**

PLUGGER does not form a water-proofing membrane and will not fill large pores, bridge cracks, seal inaccessible areas, ex. the underside of raked joints, or compensate for flawed construction. Exposed walls must be capped and the backside of parapet walls must be sealed with a waterproof membrane, flashing must be in place, and where codes allow, weep holes and drains installed and functioning.

- For vertical and sloped horizontal, above-grade substrates only.
- Substrate temperatures must be > 50° F (10° C) and ≤ 100°F (38°C) during application.
- Not recommended for application over sealed, non- porous surfaces.
- PLUGGER is not designed to remedy or prevent water intrusion problems associated with poor workmanship or inadequate building design.
- Water-repellency alone may not prevent water damage caused by water intrusion through some light-weight or highly absorbent substrates.
- Application of PLUGGER may affect the sheen of the surface. A mock-up should always be performed and approved by property owner.

## PRODUCT APPLICATION (cont.)

Fluted-block and block with raked mortar joints do not qualify for a 5-year warranty.

**5-YEAR WATER REPELLENCY WARRANTY**

Properly specified and applied applications of PLUGGER may qualify for a 5-Year Warranty. A RILEM™ tube test resulting in no water loss after 3 minutes is necessary in order for a project to qualify for a 5 Year Warranty. Two coats are generally required to achieve this performance standard. Not all substrates can achieve this standard regardless of the number of coats applied. Request OKON Warranty procedure for details.

**WARRANTY**

The manufacturer will replace this product if, within 60 days of the date of purchase, it is shown to be defective when used as directed. THE MANUFACTURER'S LIABILITY UNDER ANY WARRANTY, WHETHER EXPRESSED OR IMPLIED, IS LIMITED IN DURATION TO 60 DAYS AND IS LIMITED SOLELY TO REPLACEMENT OF THE PRODUCT AND DOES NOT INCLUDE LABOR OR OTHER CONSEQUENTIAL DAMAGES. Some states do not allow limitation on how long an implied warranty lasts or do not allow the exclusion or limitation of incidental or consequential damages. So the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

**KEEP FROM FREEZING**

**WARNING! KEEP OUT OF REACH OF CHILDREN**

## PERFORMANCE CHARACTERISTICS

Reduction in Water Leakage (Wind Driven Rain)
Split Faced Concrete Masonry Wall
ASTM E 514 >90%

Water Resistance by Immersion
ASTM 870 PASS

Water Resistance to 100% R.H.
ASTM D2247 PASS

Water Resistance Using Fog
ASTM D1735 PASS

Water Resistance to Condensation
ASTM D4585 PASS

UV Resistance - QUV 1000 Hrs Excellent.

Breathable
ASTM D1653 Yes

## PERFORMANCE CHARACTERISTICS (cont.)

Water Absorption
ASTM C140 – max. after 24 hr. 4%

Water Vapor (Perms) Transmission
ASTM E96 11.51

Durability – loss of water repellency
ASTM G53 <8%

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# OKON Plugger WATER REPELLENT SEALER

## PHYSICAL PROPERTIES

| | | OKON PLUGGER | | |
|---|---|---|---|---|
| **Resin Type** | | Acrylic | | |
| **Color** | | Milky White in Can / Colorless on Surface | | |
| **Solvents** | | Water | | |
| **Weight** | **Per Gallon** | 8.4 lbs. | | |
| | **Per Liter** | 1.00 kg | | |
| **Solids by weight** | | 20% | | |
| **Volatile Organic Compounds** | | <75 g/l<br>(0.63 lbs./gal.) | | |
| **Application Parameters** | | 50°F to 100°F (7°C to 38°C)<br><85% Relative Humidity | | |
| **Practical Coverage Rate (assume 15% material loss) [sq. ft. per gallon]** | | | 1st Coat | 2nd Coat |
| | | CMU-Fluted | 25-40 | 74-100 |
| | | CMU-Split Face | 35-50 | 80-120 |
| | | CMU-Smooth | 50-75 | 80-120 |
| | | Stucco-rough/cracked | 75-100 | 150-300 |
| **Dry Times at 70°F (21ºC) and 50% Relative Humidity** | **Recoat** | 3 hours | | |
| | **Dry to Touch** | 3 hours | | |
| **Protect From Rain** | | 24 hours | | |
| **Protect From Dew** | | 12 hours | | |
| **Shelf Life** | | 3 Years | | |
| **Flash Point** | | N/A | | |
| **Safety Information** | | For additional information, see MSDS | | |

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