

TECHNICAL DATA BULLETIN

OKON S-20™

PENETRATING WATER REPELLENT SEALER FOR DENSE CONCRETE AND MASONRY

PRODUCT DESCRIPTION

OKON S-20 is a water-base, low VOC, high performance ready-to-use, penetrating silane/siloxane water-repellent designed for dense concrete and masonry surfaces. As it penetrates into the surface it reacts with minerals within the substrate and creates a hydrophobic barrier against water intrusion.

OKON S-20 can be used on horizontal or vertical surfaces. It protects cast concrete, tilt-up panels, non-glazed brick, cementitious stucco and other comparably dense materials from the damaging effects of water absorption – efflorescence, freeze-thaw damage, etc. Its unique formulation repels water while being highly permeable to water vapor.

OKON S-20 is recommended for <i>dense</i> surfaces including:			
Pre-cast	Adobe	Exposed aggregate	Plaster
Tilt-up	Brick	Mortar joints	Stucco

FEATURES

1. Ready-to-use waterbase
2. Breathable
3. VOC Compliant (all jurisdictions)
4. Colorless, Odorless, Non-yellowing
5. Non-glossy, will not alter texture or appearance of treated surface
6. Paintable
7. Resist high alkalinity
8. Resist chloride salts

TECHNICAL DATA

- Chemistry Silane/siloxane
- pH 8.5 – 9.5
- Color Colorless
- Product type Water-base
- VOC < 50 g/L
- Specific gravity 1.01
- Depth of Penetration 3/8" (Substrate dependent)
- Accelerated weathering 1500 hours No change
- Breathable YES – ASTM 1653
- Flash point > 200 F
- Application temperature 45° to 90° F
- Viscosity < 50 cps
- Paintable Yes ASTM D 3359

SURFACE PREPARATION

OKON S-20 can be applied to most *dense* concrete surfaces that are unsealed, clean (free of dirt, waxes and oils), dry and sound. New concrete must be cured for 28 days prior to coating. Cracks and joints must be sealed prior to application. **Unsealed:** S-20 must be able to penetrate the surface. Test the openness of the substrate by sprinkling with water. If the surface turns dark with the water S-20 can be applied. **Clean:** Clean exterior surfaces by pressure washing to remove dust, sand or other foreign matter. Vacuum and damp-mop interior surfaces. Remove exterior mildew with JOMAX® House Cleaner & Mildew Killer 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. Use a degreaser to remove oil or grease stains. Allow washed surfaces to dry three days prior to coating. **Dry:** Substrate and surface moisture must be less than 17%. In climates where freezing temperatures have existed prior to application, allow adequate time for surfaces to thaw. In hot weather, lightly dampen surfaces with clean fresh water prior to application to prevent a flash cure of material. Do not apply if ambient air or surface temperatures are below 45° or over 90° F. **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 screw driver. Unsound mortar or deteriorated concrete should be removed and repaired prior to coating. Parapet walls must be capped and backside sealed with a waterproofing membrane. Protect adjacent and underlying surfaces from over spray and rundown.

COVERAGE

One saturation coat is normally sufficient for vertical, smooth dense concrete or masonry. For textured or horizontal surfaces a second coat may be required. A second coat can only be applied while the first coat is still damp.

The following coverage rates are approximate and for estimating purposes only. The surface texture and style of mortar joints can greatly affect application rates. Always apply material to test area prior to general application to establish spread rate.

Pre-cast/Tilt-up	Smooth	Exposed Aggregate
	80-120	50-100
Stucco, plaster	Smooth	Textured
	100-150	80-100
Brick, non-glazed	Clay	Concrete
	100-150	80-100

APPLICATION

OKON S-20 is ready-to-use and should not be diluted. Avoid application in windy weather. In hot weather, where possible, lightly spray surface with water to cool the surface to prevent flash drying. **S-20** is best applied by low-pressure airless spray but can be applied by garden-type sprayer or small areas can be applied by brush or roller. For airless spray use a small to medium size airless pump (.33 - .66 gpm) set at low pressure - 500 psi, and use a large tip - .035 - .050" tip. Hold spray tip 12-18 inches from the surface, start at the bottom of the wall and work up with an overlapping horizontal spray pattern to ensure run down of 6 – 8 inches. Take special care to saturate mortar joints. Do not stop or interrupt the application in the middle of the wall. Stop application only at expansion joints, walls or breaks defined with masking tape.

Horizontal Surfaces: **OKON S-20** can be used to provide water repellency to horizontal concrete floors or pads. Apply by roller, garden-sprayer or airless. Do not pour product onto horizontal surfaces to spread. Apply sufficient material so that surface remains wet for several minutes before material is absorbed. After 5-10 minutes, back-roll remaining pools or puddles with dry-roller to prevent excess material from drying on the surface. Material that is not absorbed should be back rolled or brushed out to avoid build up. A second coat may be applied to maximize protection while the first coat is still damp.

Protect shrubbery, plants, and grass, glass, metal and asphalt surfaces during application.

CLEAN-UP: Clean hands and tools with soapy water. Clean drips, runs and over-spray residue while still wet, using detergent and water. **S-20** will not etch common glass but spills and over spray onto glass should be removed with a damp cloth while wet. Dried material may require mechanical abrasion to remove. Clean application and spray equipment with detergent and water immediately following use.

LIMITATIONS: **OKON S-20** does not provide protection against hydrostatic water pressure, efflorescence caused by interior moisture sources, or moisture penetration through cracks in mortar, expansion joints or junctures between dissimilar materials. **S-20** will not fill large pores, bridge cracks, seal inaccessible areas, or compensate for flawed construction. Do not use on glazed or sealed surfaces. Do not tint. A mock-up should always be performed and approved by property owner. To protect more porous substrates when RILEM tube test standards are required use **OKON PLUGGER**. Refer to Technical Data Bulletin for detailed use instructions.

APPLICATION PARAMETERS	
Surface Temperature	45° F – 90° F
Relative Humidity	< 85%
Protect from rain	24 hours
Protect from dew	12 hours
DRY TIME	
Dry time to recoat	Wet-on-wet, if required
Dry time for foot traffic	8 hours
Dry time for vehicular traffic	24 hours
Dry time based on 70°F & 50% RH. Lower temperatures and higher humidity will increase dry time. Air circulation will aid drying. Higher surface temperatures will significantly speed drying and extra caution is required to avoid excess material, drips or runs from drying on the surface.	

PACKAGING CODES

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Code	Package	Wtg.	UPC
S-20	Gallon	9.0	
S-20	Five	44.0	
SHELF LIFE: 12 months unopened in protected storage. Product returns 6 months after purchase date will not be accepted.			

FIRST AID/SAFETY INSTRUCTIONS:

EYES: Avoid splashing into eyes or contact with skin. In case of eye contact, flood eyes repeatedly with water and call a physician as needed. **DO NOT RUB EYES!** Avoid breathing vapors or mist. Wash hands thoroughly after handling, and before smoking or eating. Do not take internally. **KEEP AWAY FROM CHILDREN AND ANIMALS.** Protect shrubbery, plants, and grass, glass, metal and asphalt surfaces during application.

5-YEAR WATER REPELLENCY WARRANTY

Properly specified and applied applications of **OKON S-20** may qualify for a 5-Year Warranty (Completion of a project verification form is required to qualify). 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



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