Technical Data Sheet

TRUE SHIELD Hydrophobic Sealer

Active component for formulating penetrating water repellent treatments

FEATURES & BENEFITS

- Easily diluted with water for ready use
- Produces a hydrophobic treatment that inhibits water absorption
- Excellent performance and stability at (5–20%) active ingredient levels
- Deep penetration of absorbent surfaces due to small molecular structure provides added repellency
- Reduction in water absorption reduces spalling due to freeze-thaw and efflorescence, thereby increasing the life of the substrate
- Penetrating treatment will not change appearance of substrate
- Solvent-free and releases little Volatile Organic Compound (VOC) upon application

COMPOSITION

- Water-dilutable silane/siloxane emulsion
- Milky white
- 40% active ingredients as supplied

DESCRIPTION

TRUE SHIELD Hydrophobic Sealer is supplied as a 40% active silane/ siloxane emulsion and should be diluted for use to between 5% and 20% depending on the application and substrate to be treated. As with other silane-based water repellents, upon proper application, the formulated product will penetrate and provide water repellency by chemically reacting with the substrate. Treated substrates are hydrophobic and normally retain their original appearance. To insure desired performance and appearance, the product should be evaluated by applying to a small representative area in an inconspicuous location.

APPLICATIONS

- For use on mineral substrates such as brick, stone, concrete and mortar that require water repellency

TYPICAL PROPERTIES

Specification Writers: These values are not intended for use in preparing specifications.

Property	Unit	Result
Color		Milky White
Active ingredient Level	%	40
pH		3.5–5.5
Specific Gravity at 25°C (77°F)		0.965
Flash Point, closed cup	°C (°F)	> 100 (212)
Density	lb/gal	8.1
Volatile Organic Compound (VOC) Content		
Exclusive of water and exempt compounds	g/L	< 300
Inclusive of water and exempt compounds	g/L	120
Solvent (Thinner)		Water

HOW TO USE

Dilution

TRUE SHIELD Hydrophobic Sealer dilutes readily with water to make stable dilutions between 5% and 20% active ingredient levels. It is recommended to use demineralized or distilled water when formulating. When using tap water, dilution stability should be tested. Salts or minerals in the water can affect the stability of the emulsion. For best results, add the water portion to the emulsion rather than adding the emulsion to water. **Mix Ratio is 9 parts water to 1 part emulsion. (9:1 water to emulsion)**

If desired, an additional preservative may be used for extended storage of diluted product. However, customers are responsible to test this additional preservative in each application to assure safety and efficacy for the intended use. For best results, always use clean, vented containers for dilution and storage.

Laboratory performance data for 5 and 10 and 20 percent TRUE DHIELD Hydrophobic Sealer active solids on various substrates are shown in Table 1.

The performance may vary depending on the active solids applied to different substrates. Optimization of the dilution level may be required to obtain maximum performance on your selected substrates.

APPLICATION

Methods of application include roller, brush or a low pressure sprayer, such as a hand-pumped garden or deck sprayer. When a brush or roller is used, repeat application until the surface remains moist for 3–4 minutes. If a low pressure sprayer is used, apply until the substrate is thoroughly saturated. On vertical applications, apply the material from the bottom up achieving a 152–203 mm (6–8 inch) rundown. Formulated TRUE SHIELD Hydrophobic Sealer may be applied to damp or wet surfaces.

As with many other treatment products, plants or shrubs should be protected from exposure to the treatment. Mask windows and any other material that should not be treated. If applied by spraying, control overspray and drift to prevent contamination of nearby substrates and areas, especially windows, vehicles, etc. Cleaning with solvents may be necessary to remove extraneous treatment.

Packaging after Formulation

For packaging in all containers including drums or pails, the use of vented closures must be used, and glass containers should never be used.

HANDLING PRECAUTIONS

TRUE SHIELD Hydrophobic Sealer evolves flammable hydrogen gas upon cure. Unopened containers should be kept in an upright position. When the material comes in contact with acids, bases, amines and heavy metals or their compounds, the rate of hydrogen evolution increases. Do not store material in the presence of these contaminants, as hydrogen evolution will occur. Take safety precautions at all times. Do not store or use near sparks or open flames and use in a well-ventilated area. Do not smoke in the vicinity of application. Always wear protective goggles and gloves. Local, state and federal regulations should be consulted for proper disposal procedures.

TRUE SHIELD DISCLAIMS LIABILITY FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES

Table 1: Performance of TRUE SHIELD Hydrophobic Sealer on Various Substrates

Substrate and % Active Solids	% Water Exclusion[1] vs. Control after 24 hours Immersion
ALKALINE SUBSTRATES	
Mortar Cubes (NCHRP 244[2])	
5% active solids	94.1
10% active solids	94.8
20% active solids	93.9
Concrete Blocks (NCHRP 244)	
5% active solids	86.7
10% active solids	86
20% active solids	76.1
NEUTRAL SUBSTRATES	
Belden Belcrest 350 Brick (ASTM C67[3])	
5% active solids	87.4
10% active solids	69.8
20% active solids	41.1
Glen Gary Salem Brick (ASTM C67[3])	
5% active solids	88
10% active solids	48.3
20% active solids	43.3

[1]Calculation is based on weight gain of control.
[2]Modified NCHRP 244 test used (2-in x 2-in x 2-in) cubes.
[3]ASTM C67 modified to use one eighth of a brick instead of one half of a brick with 3 specimens instead of 5.

USABLE LIFE AND STORAGE

When stored in the original, unopened containers at or below 25°C (77°F) and above 5°C (41° F), TRUE SHIELD Hydrophobic Sealer has a shelf life of 2 years from date of manufacture. Refer to product packaging for “Use By” date. Keep away from heat and open flame and protect from freezing.

PACKAGING INFORMATION

TRUE SHIELD Hydrophobic Sealer is supplied in 1 Quart and 1 Gallon containers.

SHIPPING LIMITATIONS

DOT Classification: Not subject to DOT.

LIMITATIONS

This product is neither tested nor represented as suitable for medical or pharmaceutical uses. TRUE SHIELD Hydrophobic Sealer is not effective in treating substrates subjected to hydrostatic pressure – for instance in below-grade applications. Do not apply when temperature is at or below 5°C (41°F).

LIMITED WARRANTY INFORMATION – PLEASE READ CAREFULLY

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer’s tests to ensure that our products are safe, effective, and fully satisfactory for the intended end use.