



## TERASIL® 1 NS

### Single-Component Moisture-Cure Modified Hydrogel Silane

#### TYPICAL CHARACTERISTICS

Appearance	Clear liquid, colorless
NVW	80%, applied
Density (20°C), Lb./Gal	8.3 – 8.6
Viscosity, cps	250 – 550

#### COMPATIBILITY

TERASIL® 1 NS is a unique modified hydrogel silane developed for moisture-cure coatings with a wide range of applications onto metal, wood, concrete, plastics, glass, polycarbonate, polyester gel coats, and other substrates, both indoor and outdoor. Coatings based on TERASIL® 1 NS can be clear or pigmented and can be used with conventional urethane-grade solvents such as PCBTF, t-Butyl Acetate, PM Acetate, and TERAFLX® DME-200.

The product can be used alone and applied at 3 mils film thickness wet, or 1 mil dry. As with any coating resin, thorough testing in the laboratory and in field trials must be completed before commercial use, and in particular before use of TERASIL® 1 NS in a blend or as a modifier with other resin systems.

#### APPLICATIONS

TERASIL® 1 NS features excellent adhesion and can be used as a sealer for both polished concrete (with or without lithium surface treatments) and for grind and seal concrete applications in combination with a polyaspartic, urethane or epoxy topcoat, as well as for MMA topcoats. These topcoats can be pigmented with metallics. Seal coats based on TERASIL® 1 NS can provide excellent penetration of the concrete substrate and contribute to resisting the passage of moisture.

Coatings based on TERASIL® 1 NS offer high gloss of about 85 and can be formulated to a 10 satin finish, especially useful for wood applications. Fast cure properties at various humidity levels can produce tack free in less than 2 ½ hours and through dry in less than 12 hours (50% RH, 23°C), providing excellent return-to-service. The product also has good resistance to yellowing.

The information contained herein is to the best of our knowledge true and accurate and any suggestions are made without guarantee, express or implied, since the conditions of use are beyond our control. Pflaumer Brothers, Inc. disclaims any liability incurred in connection with the use of these data or suggestions.

The recoat window varies with environmental humidity and temperature, of course, but can average less than 3 hours.

Properly formulated and tested coatings for metal applications can benefit from the excellent adhesion, high gloss or satin, resistance to yellowing, fast cure, fast recoatability, excellent chemical resistance, and the relatively low film thickness economics of TERASIL® 1 NS.

The good abrasion resistance, excellent adhesion, and unusual toughness of coatings formulated with TERASIL® 1 NS offer opportunities for use on polycarbonate, unsaturated polyester gel coats, glass, steel, wood, plastics, concrete, and composite substrates when effective surface preparation is made. The product can be used to some extent on flexible substrates. Full testing and evaluation is required for these applications.

## **FEATURES**

Single component, moisture cure

Good resistance to yellowing

Rapid cure time and return to service

Excellent adhesion to a wide variety of substrates

Excellent chemical resistance

## **RECOMMENDED USE LEVELS**

TERASIL® 1 NS can be used by itself and applied as a moisture-cure system at environmental relative humidity measurements greater than 20.

Applications of TERASIL® 1 NS can be made with a simple pump sprayer or quarter-inch nap roller in solvent-based formulations. In these instances, follow all safety precautions for a flammable product, including removing all sources of spark or electricity.

Performance of TERASIL® 1 NS in all applications, including properties such as adhesion, chemical resistance, and compatibility must be validated thoroughly for the specific application used. Thorough testing in the laboratory and in field trials must be done before commercial use.

## **SAFETY, STORAGE, AND HANDLING**

Consult SDS before use. Store TERASIL® 1 NS in tightly sealed containers. Prevent contact with moisture, excessive heat, and excess humidity.

Once opened, this product may react with environmental humidity from the air to generate off-gases within its container. This can lead to a dangerous buildup of pressure within the container, possibly causing the container to rupture. Once opened, this product must only be

The information contained herein is to the best of our knowledge true and accurate and any suggestions are made without guarantee, express or implied, since the conditions of use are beyond our control. Pflaumer Brothers, Inc. disclaims any liability incurred in connection with the use of these data or suggestions.

resealed under inert gas, such as nitrogen. Otherwise, it should be treated as a single-use product, and any remaining product in the container after use should be disposed of after first leaving the container open for a week to allow the material inside to cure. Do NOT reseal without inert gas blanketing.

Shelf life of product is 12 months from date product is shipped by Pflaumer and then maintained in original closed containers and stored in proper storage conditions at 25°C (75°F). If repackaging, use containers that will prevent moisture contamination.

## **CONTAINER SIZES**

5 Gallon Pail (40 Lbs / 18.1 Kg)

55 Gallon Drum (441 Lbs / 200 Kg)

The information contained herein is to the best of our knowledge true and accurate and any suggestions are made without guarantee, express or implied, since the conditions of use are beyond our control. Pflaumer Brothers, Inc. disclaims any liability incurred in connection with the use of these data or suggestions.

## PFLAUMER PRODUCTS FOR HIGH-PERFORMANCE COATINGS

Pflaumer offers a wide variety of products to formulate high-performance coatings:

TERAMINE® Hardeners for Epoxies	A wide variety of hardeners for fast-cure, medium-cure, and slow-cure 2K epoxies
TERACHEM® 53-Colorants	Ready-to-use pigment dispersions of masstones and tints for 2K epoxy, polyurethane, polyurea and polyaspartic systems
TERACURE® Aliphatic Polyisocyanates N-series	Complete line of HDI-based trimer and biuret isocyanates
TERASPARTIC® Polyaspartic Amines	A variety of aspartic amine resins to provide slow, medium and fast curing options.
TERACURE® Aromatic Polyisocyanates M-series	MDI-based aromatic isocyanates for polyureas and urethanes
TERACHEM® Polyols	Specialty polyols for urethane coatings
TERAMINE® Reactive Diluents	TERAMINE® A-140 for polyurea and polyaspartic systems
TERAFLEX® Non-Reactive Diluents	TERAFLEX® DME-200 for polyaspartics, polyurethanes, and polyureas
TERACHEM® Moisture Scavengers	Molecular sieve pastes for polyaspartics, polyurethanes, and other applications
Intermediates and Modifiers	TERAMINE® A-136 cycloaliphatic secondary di-amine for polyaspartics, epoxies, and polyureas; TERAMINE® cycloaliphatic amines (PACM, MACM) for epoxies; TALLICIN® 3001 extends pot life for urethanes and polyaspartics
TALLICIN® Wetting Agents, Dispersants, and Grinding Resins	A wide range of surfactants, wetting agents, and dispersants for both solvent-based and water-based formulations; TALLICIN® acrylic and modified-acrylic grinding resins
TALLICIN® Surface Tension Agents	A variety of bubble-release, flow and leveling modifiers for solvent-free polyaspartics, epoxies, and polyurethanes
TALLICIN® Catalysts	Tin based catalyst for polyurethanes
TERASIL® Single-Component Moisture-Cure Modified Hydrogel Silane	A modified hydrogel silane for moisture-cure coatings on a wide range of indoor and outdoor substrates, including metal, wood, concrete, plastics, and composites.

The information contained herein is to the best of our knowledge true and accurate and any suggestions are made without guarantee, express or implied, since the conditions of use are beyond our control. Pflaumer Brothers, Inc. disclaims any liability incurred in connection with the use of these data or suggestions.