



Flexipel™ Q-1000

Reactive Silane Surface Modifier

Overview

- Polar, solvent-based Silane Solution which delivers a durable and invisible coating with ambient cure
- Stable & soluble in alcohols, glycols, glycol ethers, & other polar solvents
- Provides scratch resistance to glass, tiles, and ceramics
- Improves appearance, brilliance, and clarity of treated glass surfaces
- Imparts durable water repellency, antistatic & lubricity properties with aqueous applications to substrates which contain hydroxyl groups, silanols, and metals/metal oxides such as glass, ceramics, cotton & cotton blends, paper, cellulose, wood, wool, oxidized/ weathered plastics, concrete, various stone surfaces, and metal.
- Economical, 72% actives product

Applications

- Durable scratch resistant coating
- Automotive windshield protector for improved visibility during rain
- Durable anti-stat
- Durable water-repellent barrier on concrete, stone surfaces, and cellulosic substrates
- Surface treatment of inorganic powders, sands, silicas, fillers, etc. for improved compatability in a polymer matrix

Technical Information

Flexipel™ Q-1000 is a concentrated (72% actives) cationic silane formulation dissolved in methanol which delivers an invisible, durable coating by chemically bonding to surfaces such as stone, concrete, glass, tile, and cellulosic substrates. Once on the surface, depending upon the substrate, it can impart water repellency, antistatic, release, and lubricity properties.

After treatment on a glass slide, the coefficient of friction was reduced to less than 0.1, increasing the scratch resistance of the glass between 5X-10X as measured by a Hoffman Tester (glass stylus). As a windshield protector, it creates a water repellent surface and improves visibility during rainy weather.

Formulary

Mix this product thoroughly in its container prior to removal for use. Since this is a flammable material, use appropriate mixing equipment.

Refer to the SDS for information.

Due to its high concentration, Flexipel Q-1000 is prone to stratify on standing at temperatures below 30°C (86°F).

Windshield Glass Protector: Prepare a 0.5% solution of Flexipel Q-1000 in alcohol. Apply by wiping onto the surface with a soft cloth.

For aqueous preparations, the product is dissolved in water and then applied by one of several methods: wipe, dip, roll, brush, or spray. *Note that when the product is dissolved in the water, it must be applied to the substrate within 4-8 hours because the product will polymerize in water.

Typical Properties

PROPERTY	VALUE
Appearance	Viscous liquid that stratifies on standing
Color	Colorless to pale amber
Odor	Alcoholic
Water solubility	Soluble
pH, 10% sol'n	3 to 7
Density@25°C	0.94 ± 0.02 g/ml
Boiling Point	149°F (65°C)
Flash point	93°F (34°C)
Storage	Perishable if frozen, Mix before use
Shelf life	12 months

* Due to the high concentration of the solution, Flexipel Q-1000 is prone to partially solidifying and stratifying into 2 phases upon standing at ambient temperatures. Solidification does not negatively impact the performance of the product. The product can be used as such as long as the container is sufficiently mixed before use to insure that 72% actives substance is withdrawn. The solid will dissolve once diluted in water. If it is desirable to have a complete solution of the Q-1000, the solids will redissolve at 30-40°C. This can be achieved by placing the container in a heated chamber designed to handle flammable materials & equipped with thermostat set at 30-40°C until dissolution is complete. Note that Q-1000 is a flammable material due to the methanol content & proper procedures for handling flammable materials must be used when heating, mixing, and transferring this material.

Packaging and Handling

Flexipel Q-1000 is available in: 55 gallon drums (Net Wt. 425 lbs.) and 5 gallon plastic pails (Net Wt. 40 lbs.) . Refer to the Safety Data Sheet (SDS) for information on the safe use, handling, and disposal.

DOT Classification: **Flammable Liquid** N.O.S. Class 3, UN number 1993, Packing Group III

Whether you're looking for a replacement product or an ingredient for a specific attribute, give us a call. We can provide assistance based upon your particular formulation requirements and composition; please feel free to contact us.

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