



ADVANTAGES

- Low Viscosity
- No agitation necessary
- High Strength
- Hydro insensitive
- Quick return to service
- Environmentally safe

MEETS THESE CONDITIONS

- **Compressive**
ASTM 1621-16 | 70.5 psi
- **Tensile**
ASTM D638-14 | 78 psi
- **Density**
ASTM D 1622/1622M-14 | 4.75 pcf

PHYSICAL PROPERTIES

- **VOC content:** 0%
- **Color:** Amber
- **Specific gravity:** 1.06 B side, 1.23 A side
- **Expansion:** 14-16 times
- **Reaction time:** 10 s
- **Full rise time:** 60 s
- **Full strength:** 15 minutes

MIX RATIO

1 to 1 by volume

PACKAGING

10 gallon unit, 100 gallon units



Soil Stabilizing Foam For High Flow Leakage

DESCRIPTION

I&I Guard® is a high density, high strength, structural two-part polyurethane grout. This closed cell polyurethane's low viscosity and hydro insensitive nature allows for permeation filling voids, undersealing concrete, and stabilizing soil while also mitigating inflow and infiltration.

APPLICATION INFORMATION

Soil stabilization, releveling concrete slabs, filling voids, sinkhole remediation, and other various types of geotechnical grouting

DIRECTIONS

1. **Insert probes in grid pattern to area of desired application.**
2. **Begin injecting into first probe avoiding over pressuring while taking note of volumes used and travel of foam.**
3. **Make sure material is not exiting or penetrating other probes while taking into consideration volume to vertical distance ratio estimation.**
4. **Purge injection gun frequently to avoid the material curing within the gun.**
5. **Clean injection gun thoroughly after use.**

SAFETY

Always use safety glasses and protective clothing including gloves when using this product to avoid contact with skin and eyes. Before use review respective Safety Data Sheet.

STORAGE

Store between 50°F and 80°F.

DISPOSAL

Dispose of cartridge in adherence with local regulations.



PROPERTIES

- **Specific Gravity:** 1.1
- **Viscosity:** 800 cps @ 72°F
- **Color:** Brown
- **Solids:** 100%
- **Corrosiveness:** Non Corrosive

CURED MATERIAL PROPERTIES

	Free Rise	Confined
Density	03 PCF	50 PCF
Compressive ASTM D-1622	125 psi	3,500 psi
Tensile ASTM D-1621	75 psi	3,600 psi
Shear ASTMD-638	50 psi	1,760 psi
Elongation ASTM D-3574	40%	9%

Stops Water Infiltration, With A Closed Cell, Non-Shrinking, Hydrophobic Grout.

DESCRIPTION

I&I Guard®-SCF is a hydrophobic polyurethane grout designed to stop water infiltration while at the same time filling voids, cracks and joints. As the material is stopping infiltration and sealing the structure, it also permeates into the soil on the backside of the structure to create a curtain wall of grout repelling the water source from the structure. Ideal use for manholes, tunnels, pipes, vaults and tanks of all construction materials as the grout quickly cures to a flexible, closed cell, water repellent, polyurethane foam that exhibits excellent chemical resistance. I&I Guard-SCF is a hydrophobic polyurethane grout designed to stop water infiltration.

PRODUCT ADVANTAGES

- **No mixing**
- **Non-shrinking**
- **Free foam expansion up to 30 times**
- **Easy to use**
- **Single component**
- **Versatile**
- **Pre-catalyzed**

PRODUCT APPLICATIONS

- **Sealing larger volume leaks through concrete cracks and fissures**
- **Filling voids**
- **Stabilizing soil or gravel**
- **Foundation repair**





WARRANTY

Quadex, LLC warrants its products to be free of defects in material and workmanship. Unless superseded by project specifications and terms agreed upon in writing between installer and Quadex prior to bid, if within one year from purchase, any Quadex, LLC product is proven defective, the company will replace said product or refund its purchase price at its sole discretion. The company's obligation shall be limited solely to such replacement or refund. There are no other warranties by Quadex, LLC, expressed or implied. There is no warranty if Quadex products are used contrary to Quadex, LLC's written directions.



Before I&I Guard-SCF



After I&I Guard-SCF

ADVANTAGES

- **Creates tenacious bond to any surface wet or dry**
- **Closed cell grout will not allow water to pass through**
- **Expansion fills voids 30:1 expansion ratio**
- **Flexibility accommodates movement while maintaining seal**
- **Extremely simple to apply**
- **Resealable/re-usable**
- **Non-hazardous - No VOC's, CFC's or HFC's**

WORKING CONDITIONS

Temperature will affect the overall cure of I&I Guard®-SCF. Working temps required are between 40°F and 90°F. Colder temperatures will increase viscosity and affect the ability to pump I&I Guard-SCF. Higher temperatures will accelerate overall cure. Ideal ambient temperature for application is 70°F.

STORAGE

- **Maintain seal until ready for application**
- **Product is moisture sensitive**
- **Store under 80°F**

PACKAGING

600ml, 1200ml, and 5 Gallon units

SHELF LIFE

1 Year in unopened containers



TYPICAL RESIN PROPERTIES

I&I Guard-MSF - Side A

- **Viscosity:** 150 cps
- **Specific Gravity:** 1.18
- **Weight/gallon:** 9.8 lbs
- **Appearance:** clear, light brown liquid
- **Shelf Life:** 6 months

I&I Guard-MSF - Side B

- **Viscosity:** 5 cps
- **Specific Gravity:** 0.9
- **Weight/gallon:** 7.5 lbs.
- **Appearance:** clear, light yellow liquid
- **Shelf Life:** 6 months

TYPICAL REACTION PROPERTIES

Hand mix at 72°F, 25 grams Stabilizer : 1 grams Water

Weight %Activator	Cream (s)	Rise (s)
0.5	24	250
1.0	21	200
4.0	15	100
10.0	12	60

The above values are average values obtained from laboratory experiments and should serve only as guidelines.

Soil Stabilization Foam

DESCRIPTION

I&I Guard®-MSF (Soil Stabilization Foam) is a low viscosity, polyurethane injection resin, designed to stabilize soil. When mixed with catalyst and injected, it migrates through loose soil and into below-grade voids. As it comes into contact with moisture in the soil, I&I Guard-MSF reacts and expands to form a rigid foam. The foam encapsulates loose soil, fills voids, and forms a solid, water-tight barrier.

DISTINGUISHING CHARACTERISTICS

- **Stabilize soil before excavation**
- **Seawall stabilization and strengthening**
- **Stabilize and remediate water through earthen dams**
- **Seal leaks in sub-grade walls**
- **Soil strengthening for tie back anchors**

UNIQUE ADVANTAGES

- **Contains no solvents**
- **Very low viscosity for good penetration**
- **Cure time controlled by catalyst ratio**
- **Encapsulates and strengthens loose soil**
- **Forms a water-tight barrier to stopwater migration**
- **Good resistance to chemicals**
- **Contains no TDI**
- **1200 psi compressive strength (ASTM D1621) in sand**



WARRANTY

Quadex, LLC warrants its products to be free of defects in material and workmanship. Unless superseded by project specifications and terms agreed upon in writing between installer and Quadex prior to bid, if within one year from purchase, any Quadex, LLC product is proven defective, the company will replace said product or refund its purchase price at its sole discretion. The company's obligation shall be limited solely to such replacement or refund. There are no other warranties by Quadex, LLC, expressed or implied. There is no warranty if Quadex products are used contrary to Quadex, LLC's written directions.

SAFE HANDLING OF LIQUID COMPONENTS

Use caution in removing bungs from the container. Loosen the small bung first and let any built up gas escape before completely removing. Avoid prolonged breathing of vapors. In case of chemical contact with eyes, flush with water for at least 15 minutes and get medical attention. For further information refer to publication AX-205 "Guidance for Working with MDI and PMDI – Things You Should Know" published by The Center For The Polyurethanes Industry, 700 2nd Street, NE, Washington, DC 20002 (www.americanchemistry.com).

ADDITIVE GUIDELINES

Wt % Activator	Oz. Activator Per Gal. Soil Stabilizer
0.5	0.6
1	1.3
4	5.0
10	12.5

NOTES: I&I Guard®-MSF - Side B is a catalyst that causes the soil stabilizer to react with ambient moisture. Once activated, QRM migration SSF - Side A will react with any available water, including humidity in the air. To minimize loss caused by its reaction with ambient moisture, mix and use material in small batches. If a crust forms on the top of the mixed material, it will act as a temporary seal and inhibit curing of the liquid below the crust. If a crust forms, leave it intact until the liquid under the crust has been pumped. Once I&I Guard-MSF - Side A has been activated with I&I Guard-MSF - Side B, it should never be left in pumps or stored for more than a few hours.

STORAGE AND USE OF CHEMICALS

Keep temperature of chemicals at 70°F for several days before use. Cold chemicals can cause poor mixing, pump cavitation or other process problems due to higher viscosity at lower temperatures. Absolutely no thinners should be added to this 100% solids system. Viscosity can be reduced by an increase in temperature. The 'A' component is sensitive to exposure to moisture. Keep drums tightly closed when not in use and under nitrogen pressure of 2 - 3 psi after they have been opened. Prolonged exposure to temperatures below 50°F can cause the 'A' component to freeze. Do not store in direct sunlight.

ASTM D732 – SHEAR PUNCHING STRENGTH

PRODUCT	PEAK LOAD (LBF.)	PEAK STRESS (PSI)	MODULUS (PSI)
I&I Guard-MSF with Catalyst	500	901	1533

ASTM D1621 – COMPRESSIVE PROPERTIES

PRODUCT	YIELD LOAD @10% (LBF.)	YIELD LOAD @20% (LBF.)	COMPRESSIVE YIELD STRENGTH @10% (LBF.)	COMPRESSIVE YIELD STRENGTH @20% (LBF.)	COMPRESSIVE MODULUS (PSI)
I&I Guard-MSF with Catalyst	2,490	3,070	910	1,120	11,300
I&I Guard-MSF without Catalyst	2,640	3,610	1,260	1,740	9,500

ASTM D638 – TENSILE PROPERTIES

PRODUCT	PEAK STRESS (PSI)	% ELONGATION
I&I Guard-MSF with Catalyst	450	12.3
I&I Guard-MSF without Catalyst	220	6.4



ADVANTAGES

- Fast reacting
- Easy to use cartridges
- No mixing
- Self contained packaging
- Non Hazardous
- No shrinkage
- Expands 10 times liquid

PHYSICAL PROPERTIES

- VOC content: 0%
- Color: Amber
- Specific gravity: 1.06 B side, 1.23 A side
- Reaction time: 3-5 s
- Expansion time: 30 s

MIX RATIO

1 to 1 by volume

PACKAGING

300ml x 300ml Cartridge

* The values stated in inch-pound units are to be regarded as the standard. The values given in International System are for information only.



Fast Acting Grout for High Flow Leakage: 300ml x 300ml Cartridge

DESCRIPTION

I&I Guard®-PRF is a two-part poly urethane grout used to stop high flow infiltration. Easy injection method creating curtain of grout on the outside of underground structures. Super fast cure allows for immediate reduction in infiltration. Best when used in conjunction with Quadex® branded rehab systems.

APPLICATION INFORMATION

Stopping leaks in manholes, vaults, lift stations, pipelines, etc. Can be used to stop leaks up to 50 gallons | 189 liters per minute. Used primarily to stop high inflow and infiltration.

DIRECTIONS

1. Drill 5/8-inch | 15.88 mm completely through the structure.
2. Remove nut from cartridge.
3. Slide nut onto static mixing tip.
4. Insert static mixing tip in to drilled hole.
5. Remove cap plug from cartridge hold the cartridge upright.
6. Attach cartridge to static mixing tip by tightening the nut.
7. Use cartridge gun by pumping handle to dispense grout.
8. Continue to pump handle until the cartridge is empty or until you no longer pump handle.

SAFETY

Always use safety glasses and protective clothing including gloves when using this product.

STORAGE

Store between 40°F | 4.4°C and 100°F | 37.8°C.

DISPOSAL

Dispose of cartridge in adherence with local regulations.