

I & I Guard[®]-SSF | 4

ADVANTAGES

- NSF/ANSI 61 Section 5 - 2017 certified
- Low Viscosity
- No agitation necessary
- High Strength
- Hydro insensitive
- Quick return to service
- Environmentally safe

REACTIVITY AT 110°

- Cream time — 7 seconds
- Gel time — 13 seconds
- Tack free time — 19 seconds
- Rise time — 26 seconds

PROCESSING PARAMETERS

- ISO temperature — 100°-120°F
- Poly temperature — 100°-120°F
- Mixing Pressure — 800 psi static, 600 psi dynamic, 1,000/800 preferred

MIX RATIO

By weight: 100 parts poly : 118 parts iso
By volume: 100 parts poly : 100 parts iso

PACKAGING

10 gallon unit, 100 gallon units, 500 gallon units

DISPOSAL

Dispose of containers in adherence with local regulations.



4 | Soil Stabilization & Flow Mitigation

DESCRIPTION

I & I Guard[®]-SSF | 4 is a high density, high strength, structural two-part polyurethane grout. Due to its hydrophobic/hydro-insensitive, MDI-based polymer formula it has exceptional flow or spread under concrete structures when moisture is present. I & I Guard-SSF | 4 is excellent for permeation void filling, undersealing concrete, and stabilizing soil while also mitigating inflow and infiltration.

APPLICATION INFORMATION

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

TYPICAL USES

- Bridge Approaches and Departures Highway and Streets
- Airport Runways and Taxiways Concrete Slab Lifting
- Joint Matching
- Void Filling
- Deep Soil Injection

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.

PERFORMANCE

- Wet Environments — Excellent
- Lifting Capacity — Excellent

CHEMICAL RESISTANCE

- Solvents — Excellent
- Mold and Mildew — Excellent



STORAGE

Store the poly from 50°F to 90°F. Avoid moisture contamination during storage, handling, and processing. For both components, pad containers and day tanks with either nitrogen or dry air (desiccant cartridge or air dryer @ -40°F dew point). For optimum shelf life, the recommended storage temperature for iso is 50°F to 110°F. Do not expose iso to lower temperatures - freezing may occur. Store components at 70°F to 90°F for several days prior to use to minimize components being too viscous at time to take to field. Shelflife of resin is 6 months and ISO is 2 years for factory sealed containers.

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.

COMPONENT PROPERTIES

Component	Part A	Part B
Appearance	Transparent Liquid	Clear Brown Liquid
Brookfield Viscosity @ 20rpm	500 cps at 72°	200 cps at 72°
Specific Gravity	1.07	1.24
Weight per Gallon	8.9 lbs	10.3 lbs
Storage Temperature	50° - 100°F	50° - 110°F

PHYSICAL PROPERTIES

PHYSICAL PROPERTIES	TEST METHOD	FREE RISE	RESTRAINED
Density	ASTM D1622	4.0 pcf	5-6 pcf
Compressive Strength	ASTM D1621	80 psi	80-100 psi
Compressive Modulus	ASTM D1621	1900 psi	2400-3200 psi
Tensile Strength	ASTM D1623	85 psi	100-120 psi
Tensile Modulus	ASTM D1623	1446 psi	3100 psi
Water Absorption	ASTM D2842	≤ 0.04 lbs/ft ²	≤ 0.04 lbs/ft ²
Closed Cell Content		>92%	>92%
Max Service Temp		200°F	200°F
Elongation	ASTM D1623	5.1%	
Shear Strength	ASTM C273	52.0 psi	90 psi
Shear Modulus	ASTM C273	602 psi	677 psi
Flexural Strength	ASTM D790	90 psi	139 psi
Flexural Modulus	ASTM D790	1625 psi	3147 psi

SPECIAL TESTING / CERTIFICATIONS

NYDOT Hydro-insensitivity test, GTP-9	>96% density retention >93% comp str retention		
DIMENSIONAL STABILITY, % VOLUME CHANGE, 28 DAY AGING (ASTM D-2126)	HEAT AGE AT 158°F	FREEZER AT -20°F	HUMID AGE AT 100% RH & 120°
	-1.5%	-0.1%	-1.0%