SURFACE™

TECHNICAL DATA SHEET

SL-FLUID™

self-leveling underlayment concentrate

REINFORCED WITH SYNTHETIC FIBER

Hydraulic cement-based, fiber-reinforced self-leveling underlayment concentrate formulated for thick-section applications. Designed to correct irregular, uneven, or non-uniform substrates and provide a level surface prior to the installation of floor coverings. When mixed with water and properly graded aggregate, **SL-FLUID™** develops high compressive strength and controlled dimensional stability. Suitable for application thicknesses ranging from 3/8" to 3" (10–76 mm), depending on mix design and site conditions

Suitable for use in applications where gypsum-based underlayments are not recommended or permitted, particularly in areas requiring ceramic tile or other finishes installed with cementitious adhesives, which may result in reduced bond performance over gypsum substrates

USES

- For interior applications in commercial and residential environments
- For leveling and smoothing of existing substrates including concrete, cementitious screeds, terrazzo, natural stone, and properly prepared ceramic tile
- Suitable for use over wood subfloors (e.g., plywood, OSB) provided they are structurally sound, properly fastened, and meet applicable deflection criteria. Wood substrates must be properly prepared, primed, and may require the use of reinforcement (e.g., metal lath) in accordance with accepted industry practices and project requirements
- For preparation of level surfaces prior to the installation of floor coverings such as resilient flooring (vinyl), wood, laminates, carpet, and ceramic tile
- Suitable for use in dry and intermittently wet areas such as bathrooms, kitchens, and basements
- Recommended for deep-fill applications and renovation projects requiring thickness build-up

LIMITATIONS

- For interior use only / Not suitable for exterior applications
- Not intended for vehicular traffic or heavy industrial loads
- Not to be used as a final wearing surface
- Substrate moisture conditions must be evaluated prior to installation
- Do not apply over frozen substrates or in areas subject to continuous moisture exposure

KEY FEATURES

- Allows light foot traffic in approximately 10–12 hours, depending on thickness and site conditions
- Suitable for application using conventional mixing and pumping equipment
- Develops compressive strength in the range of 3000–4400 psi (20–30 MPa), depending on mix design and aggregate characteristics
- Compatible with standard cementitious adhesives (thin-set systems) when applied over properly prepared substrates
- Suitable for applications where gypsum-based underlayments are not permitted
- Exhibits low moisture sensitivity under normal service conditions
- Provides reliable adhesion to properly prepared cementitious substrates, including precast elements (e.g., hollowcore planks)
- Compatible with cementitious tile-setting materials (ANSI A118)

PACKAGING

Supplied in 44 lb (20 kg) bags as a gray powder

TECHNICAL REFERENCES (laboratory test at 73°F)

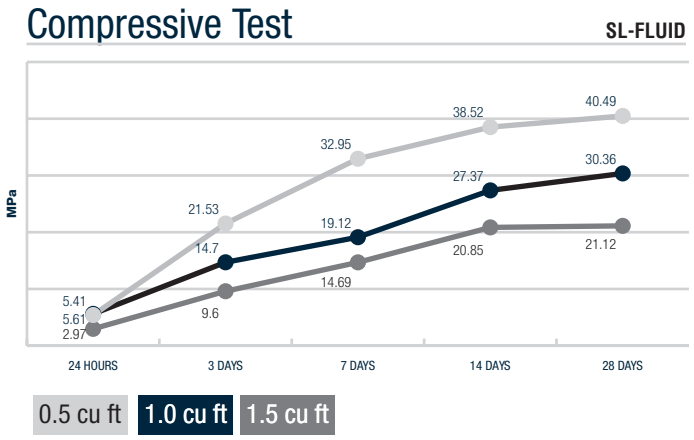
TYPE OF MIX	0.5 cu ft	1.0 cu ft	1.5 cu ft
Sand weight[1]	44 lbs	88 lbs	132 lbs
Water required per 44 lbs bag[2]	8.9 quarts	11.4 quarts	15.2 quarts
Flow spread (ASTM C1708)[4]		9–10 in (230–250 mm)	
Approximate yield at 3/8 in (10 mm)[4]	26 sq ft	33 sq ft	52 sq ft
Working time[4]		20 to 25 minutes	
Ready for light foot traffic at 3/8 in (10 mm)[3]		10 to 12 hours	
Bond strength (ASTM C1583, 28 days)[4]	1.6 MPa	1.5 MPa	1.3 MPa
Compressive Strength (ASTM C109, 28 days)[4]	5,800 psi	4,400 psi	3,000 psi
Flexural Strength (ASTM C348, 28 days)[4]	1,480 psi	1,160 psi	740 psi

[1] The weight of the aggregate may vary depending on its type, gradation, and moisture content. Adjustments may be required based on field conditions. The aggregate must be clean, dry, and well-graded, conforming to ASTM C33 requirements for fine aggregates, and free of deleterious substances such as clay, silt, and organic matter

[2] The mixing water content may be adjusted slightly to achieve the required flow and workability. Do not exceed the recommended water range, as excessive water may result in segregation, bleeding, and reduced performance

[3] Drying times may vary depending on application thickness, environmental conditions, and the type of floor covering to be installed. The moisture condition of the substrate and underlayment must be verified prior to installation using appropriate test methods, such as ASTM F2170 (in-situ relative humidity), ASTM F1869 (calcium chloride method). ASTM D4263 (plastic sheet method) may be used as a preliminary qualitative assessment

[4] Reported values based on laboratory conditions and may vary depending on site conditions, aggregate characteristics (gradation and moisture content), and mixing consistency



Material consumption values are based on theoretical calculations under controlled laboratory conditions. Actual consumption may vary depending on substrate conditions, surface profile, and application thickness. The installer is responsible for evaluating site conditions and determining the appropriate quantity of material required

SUBSTRATE PREPARATION

- Substrates must be structurally sound, clean, dry, and free of dust, laitance, grease, curing compounds, and other contaminants
- Concrete substrates must be at least 28 days old or have reached sufficient strength
- Surface defects, cracks, and voids must be properly repaired prior to application
- All control and construction joints must be honored and treated appropriately
- Substrate moisture conditions must be evaluated using appropriate test methods
- Apply TECNODRY primer P-346 in accordance with its Technical Data Sheet
- Highly porous substrates may require multiple coats of primer
- For high-traffic or demanding applications, an epoxy primer with silica sand broadcast is recommended

MIXING AND APPLICATION

- Apply between 50–86°F (10–30°C). Do not apply below 50°F (10°C)
- Verify surface levels prior to installation using appropriate leveling equipment
- Use suitable mixing equipment (mechanical mixer or pump) to ensure consistent results

- Mix SL-FLUID™ concentrate with clean, cool water and properly graded aggregate until a homogeneous mixture is obtained
- Maintain material temperature between 50–68°F (10–20°C) during mixing
- Do not exceed the recommended water content
- Do not add other materials or admixtures
- Place the material immediately after mixing and distribute evenly to the desired thickness
- Spread using a gauge rake or smoothing tool and use a spiked roller to release entrapped air

CURING

- Protect the applied material from drafts, direct sunlight, and rapid drying during the first 24 hours
- Maintain ambient and substrate temperatures within recommended limits
- Do not force dry the material
- Allow adequate curing time prior to installation of floor coverings

DRYING / INSTALLATION TIME

- Light foot traffic: approximately 10–12 hours, depending on thickness and site conditions
- Installation of floor coverings should proceed only after moisture levels meet the requirements of the floor covering manufacturer
- Moisture condition must be verified prior to installation in accordance with ASTM F2170, ASTM F1869 or ASTM D4263

The latest versions of our technical datasheets are available on our websites:
www.self-leveling.us | www.nivelantes.com

Refer to the Safety Data Sheet (SDS) for safety, handling, and emergency information

SHELF LIFE AND STORAGE

It has a shelf life of up to 12 months as long as it is sealed in its original packaging in a dry, cool place, protected from sunlight and moisture

SPECIAL CARE

Contains cement – may cause irritation. Use appropriate personal protective equipment. Refer to SDS

LIMITED WARRANTY

TECNODRY guarantees the quality of its products based on the use of premium raw materials, ensuring the product's quality, performance, and compliance with our technical specifications. However, **TECNODRY** shall not be held liable for failures resulting from inadequate preparation, improper installation or finishing, or substrate defects where the product is applied

The information contained in this document is provided in good faith and reflects the current knowledge and experience of **TECNODRY**. It applies exclusively to the specific uses and applications mentioned herein. Users are responsible for verifying the product's suitability by conducting their own tests under actual application conditions

WARNING: This product can expose you to chemicals including crystalline silica, which is known to the State of California to cause cancer.
For more information, go to www.P65Warnings.ca.gov

VOC content: 0 g/L (calculated based on formulation)

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