

High compressive strength and quick-set self-leveling underlayment



TECHNICAL DATA SHEET

UNIVERSAL PREMIUM



Description:

Hydraulic fluid mortar with rapid setting and accelerated drying for poorly finished, uneven surfaces or those with imperfections that require optimal leveling. **SL-QS.neo** offers a high-performance additive formulation that, when mixed with water, results in a self-leveling product free of shrinkage for thicknesses ranging from 1/16" to 2 3/4" (1.5 to 70 mm)

Key features:

- Easy to apply with excellent fluidity
- Supports light traffic 2 to 3 hours after application
- Fast setting and very high strength

Uses:

- Recommended for industrial, commercial, and residential areas. For correcting uneven or damaged existing surfaces on concrete floors, slabs, natural stone, terrazzo, ceramic tile, etc.
- For filling voids or differential thicknesses between 1/16" and 2 3/4" (1.5 to 70 mm)
- Suitable for installing vinyl flooring, wood, laminates, carpets, ceramics, epoxy systems, urethanes, etc.
- **Suitable for vehicular traffic and forklifts with common weight and rubber wheels, minimum thickness 1/2"**
- **SL-QS.neo must always be protected by a final finish (flooring, epoxy/urethane seal, anti-stain, shine, etc.), even when proceeding with mechanical polishing**

Packaging:

55 lbs (25 kg) bags of light grey powder

Technical references:

(Laboratory test at 73°F)

Physical Appearance	Light grey powder
Water quantity per bag (thickness 1/16" to 3/8") (1.5 to 10 mm)	1.36 gallons
Water quantity per bag (thickness 3/8" to 2 3/4") (10 to 70 mm)	1.19 gallons
Working time ¹	≈ 20 minutes
Ready for light traffic at 1/8" (3 mm) ²	2 to 3 hours
Drying time for finish installation ²	6 to 48 hours
Compressive Strength at 28 days (ASTM C109) ³	10,099 psi
Flexural Strength at 28 days (ASTM C348) ³	1,067 psi
Adhesion Test at 28 days (ASTM C1583) ³	2.21 Mpa
Reference time in Ford No. 5 cup (viscosity) ³	1 min 40 sec
Taber Abrasion Test (ASTM D4060-19) (CS-17 disk - 1kg - 1000 rpm) ³	0.0169 ounces (weight loss)
Shrinkage Test at 28 days (ASTM C157) ³	0.040%

¹ According to laboratory tests and variable depending on site conditions

³ with 1.19 gallons of water (3/8" to 2 3/4") (10 to 70 mm)

² Depending on the thickness of the leveling and the type of flooring to be installed, the substrate's moisture level should be verified using measurement equipment, as drying times may vary

Minimum thickness per application:

Underlayment: 1/16"

Resins: 1/4"

DPA System: 1/4"

To determine the material consumption, it is calculated based on THEORETICAL data from laboratory tests. Actual consumption on-site may vary due to factors such as: rough, irregular, cracked surfaces, with cavities, porosity, warping, as well as applied thicknesses different from those specified, etc. Under no circumstances are we responsible for the quantity of materials requested, consumed, and ultimately applied.

Laboratory Tests

Tests carried out in our laboratory with the latest generation **CONTROLS PILOT PRO AUTOMATIC** compression / bending press

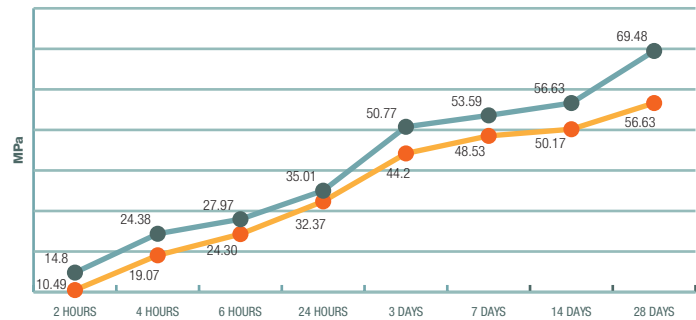


CONTROLS

PILOT PRO

Compressive Test

SL-QS.neo

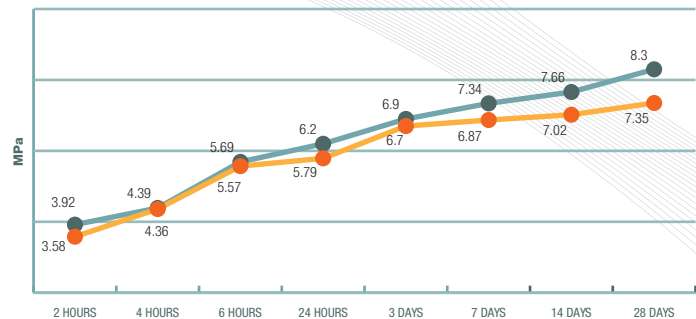


Compression strenght

	1.19 gallons of water (3/8" to 2 3/4")	1.36 gallons of water (1/16" to 3/8")
2 hours	14.80 Mpa (≈ 2,147 PSI)	10.49 Mpa (≈ 1,521 PSI)
4 hours	24.38 Mpa (≈ 3,536 PSI)	19.07 Mpa (≈ 2,766 PSI)
6 hours	27.97 Mpa (≈ 4,057 PSI)	24.30 Mpa (≈ 3,524 PSI)
24 hours	35.01 Mpa (≈ 5,078 PSI)	32.37 Mpa (≈ 4,695 PSI)
3 days	50.77 Mpa (≈ 7,364 PSI)	44.20 Mpa (≈ 6,411 PSI)
7 days	53.59 Mpa (≈ 7,773 PSI)	48.53 Mpa (≈ 7,039 PSI)
14 days	56.63 Mpa (≈ 8,213 PSI)	50.17 Mpa (≈ 7,277 PSI)
28 days	69.48 Mpa (≈ 10,077 PSI)	56.63 Mpa (≈ 8,213 PSI)

Flexural Test

SL-QS.neo

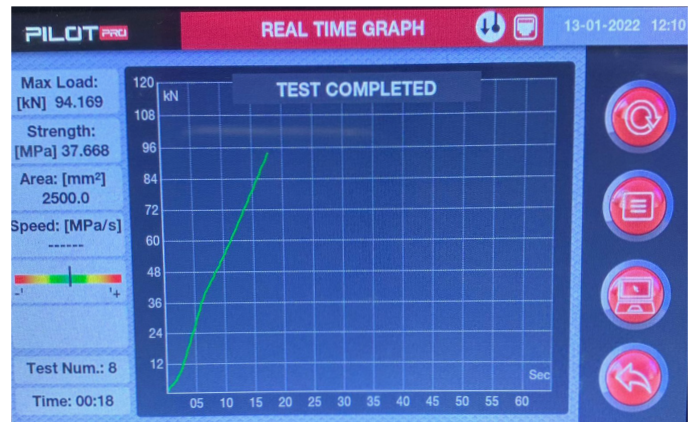
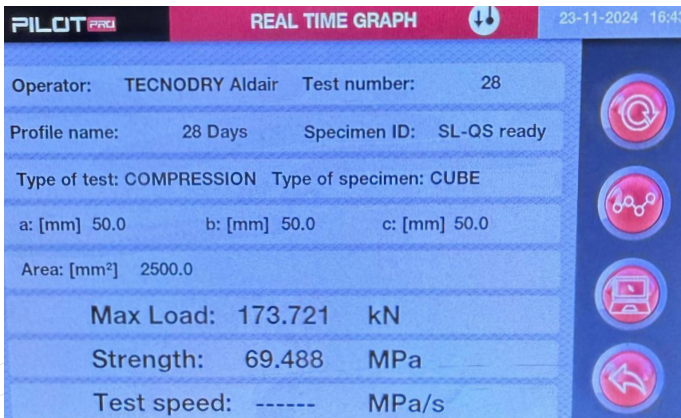


Flextural strenght

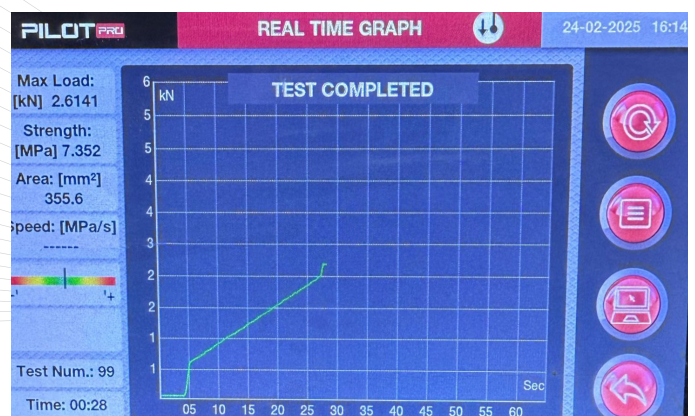
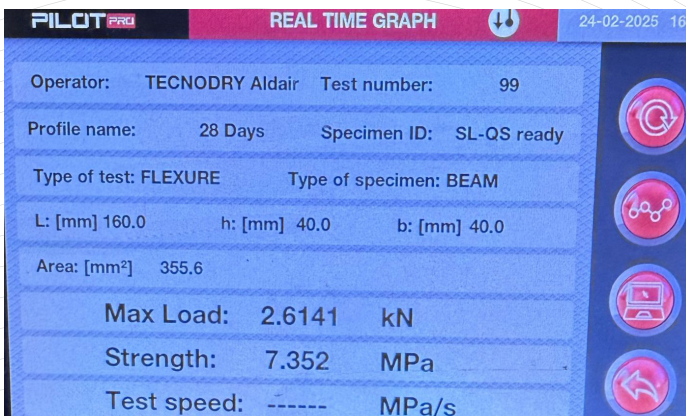
	1.19 gallons of water (3/8" to 2 3/4")	1.36 gallons of water (1/16" to 3/8")
2 hours	3.58 Mpa (≈ 519 PSI)	3.92 Mpa (≈ 569 PSI)
4 hours	4.36 Mpa (≈ 632 PSI)	4.39 Mpa (≈ 637 PSI)
6 hours	5.57 Mpa (≈ 808 PSI)	5.69 Mpa (≈ 825 PSI)
24 hours	5.79 Mpa (≈ 840 PSI)	6.20 Mpa (≈ 899 PSI)
3 days	6.70 Mpa (≈ 972 PSI)	6.90 Mpa (≈ 1,001 PSI)
7 days	6.87 Mpa (≈ 996 PSI)	7.34 Mpa (≈ 1,065 PSI)
14 days	7.02 Mpa (≈ 1,018 PSI)	7.66 Mpa (≈ 1,111 PSI)
28 days	7.35 Mpa (≈ 1,066 PSI)	8.30 Mpa (≈ 1,204 PSI)

* These screenshots correspond to internal tests done in our laboratory (1 MPa = 10.2 kg/cm²)

Compressive strength



Flexural strength



Measurement equipment from our laboratory



Substrate preparation

The slab, mezzanine, or surface to be leveled must be at least 28 days old or have reached its full strength and must be free of moisture (it is recommended to take measurements with calibrated equipment and by qualified technical personnel).

SL-QS.neo is applied on clean, dry surfaces, without cracks, fissures, or cavities, which must be repaired if necessary. If control joints or construction joints exist, they must be treated appropriately to allow them to be coated with **SL-QS.neo**

Improper substrate preparation invalidates the warranty

Apply our primer **P-346** to the existing substrate; this application must follow the instructions in the corresponding technical data sheet. It is always recommended to apply two coats of sealer on porous surfaces. In high-traffic commercial and industrial areas, it is recommended to apply an epoxy primer with silica sand broadcast.

Mixing and application:

The levels should be measured with a laser or special equipment

The right product mixing is needed to achieve the expected results; it's recommended to use a special mixer or pump equipment

Mix the contents of the bags evenly with clean, fresh water (preferably at a temperature between 50 and 68°F). **Never add more water than indicated, never mix our product with other**

Once the adequate fluidity has been obtained, the self-leveling mixture should be emptied immediately in uniform sections based on the expected yield and according to the calculated thickness

Extend the mixture with a squeegee or special trowel to control the correct thickness. Use a "leveling float" repeatedly in one and other way to avoid the air stored in the mixture

Very important: Absolutely avoid mortar being exposed to air currents and direct rays of the sun during the first 24 hours after application.

Shelf life and storage:

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

Special care:

This product contains additives that do not pollute the environment, is not toxic or have organic components that degrade. The use of protective equipment such as safety glasses, dust mask and latex gloves is recommended.

Keep out of the reach of children.

Limited warranty:

TECNODRY extends the warranty of quality of our products, based on the use of raw materials of the highest quality, ensuring its quality and behavior according to our specifications. **TECNODRY** is not responsible for failures that arise from errors in preparation, installation, finishing or failure of the surface in which it's applied. The information contained in this document has been provided in good faith based on the current knowledge and experience of **TECNODRY**. The information is valid exclusively for applications and uses to which reference is made. The information expressed herein does not exonerate the user from testing products and performances for the desired application and purpose

Our most up-to-date technical datasheets
are always available on our web pages:

www.nivelantes.com www.self-leveling.us

