



SmartFlo NS

Self-Levelling Normal Set Underlayment

SmartFlo NS is a polymer modified cementitious material designed as an underlayment to receive floor coverings. It is suitable for use as a repair and leveling course and may be applied at a thickness of around 5 mm to 20 mm in a single application. **SmartFlo NS** is a one-part system requiring only the addition of water. It is highly recommended to apply a primer before applying **SmartFlo NS**.

FIELDS OF APPLICATION

- **SmartFlo NS** may be applied over any interior sound concrete substrate to provide a smooth and level underlayment for receiving carpets, vinyl, tiles, etc.
- Suitable for leveling and smoothing of uneven flooring.

BENEFITS

- Excellent flowability and mix consistency
- Long working life
- Quick and easy laying reduces cost and saves time
- Pumpable through standard equipment
- Excellent bonding to substrate
- Compatible with floor coverings and adhesives

TECHNICAL DATA

PROPERTY	TYPICAL RESULTS
Compressive Strength (ASTM C109 / 109M : 2008)	
@ 7 days	> 20 N/mm ²
@ 28 days	> 28 N/mm ²
Flexural Strength (ASTM C348 : 2008)	
@ 7 days	> 6 N/mm ²
@ 28 days	> 8 N/mm ²
Tensile Adhesion Bond Strength (ASTM D4541 : 2009)	> 2.5 N/mm ²
Flowability (ASTM C1437 : 2007)	> 200 %
Open Time	30 minutes
Ready for Foot Traffic	12 hours
Water Penetration	0 mm
Coverage per bag	- 0.55 m ² /kg/mm

• All the data shown are based on controlled laboratory test (T=27±2°C and RH=60%)

SURFACE PREPARATION

- New concrete should be at least 28 days old.
- Both new and old concrete must be structurally sound, clean and free from contaminants in order to obtain a good bond.
- Check the substrate level and rectify any major unevenness with a smoother fall before laying **SmartFlo NS**.
- Unsound substrates must be repaired & allowed to cure for at least 7 days.

PRIMING

- The prepared surface must be primed with **SmartPrime SL** or equivalent recommended primer using a cotton roller or soft brush.
- On porous or absorbent surfaces, two coats of primer or more should be used. The second coat should only be applied after the first coat has become touch dry.
- Ensure that the primer has cured properly prior to application of **SmartFlo NS**.

MIXING

- Mixing should be done as close to the area of placement as is physically possible.
- For small batch mixing, pour a 25 kg bag of **SmartFlo NS** powder into a clean bucket with 5.75 - 6.0 litres of water and mix with a hand-held drill mixer for about 3 minutes until a homogeneous lump-free mix is obtained.
- For larger area, continuous feed mixer / pump system is preferable.
- Discard the mix if it stiffens prior to application.

PLACING

- **SmartFlo NS** has a open time of around 30 minutes and can be placed continuously after mixing.
- Pour the well-mixed **SmartFlo NS** continuously onto the primed surface.
- Spread the material with a steel trowel and go over the leveling material with 1 or 2 passes.
- It is recommended that installers wear special shoes with spikes during installation.
- **SmartFlo NS** is designed for application at a thickness of around 5 mm - 20 mm per application.
- If a slightly thicker layer is needed, clean sand may be added to 30% by weight as extender.

CURING & TREATMENT

- Under normal interior conditions (air-conditioning and windows closed), special curing treatments are not required.
- Where rapid drying conditions exist (such as high temperature, direct sunlight or strong wind), mist spraying with water is recommended a few hours after application of **SmartFlo NS**. When the floor is hard enough to walk on, it should be covered with plastic film for at least 3 days.

COVERAGE / YIELD

- **SmartFlo NS** coverage is about 0.55 m²/kg/mm (depending on condition of substrate).
- Each 25 kg bag yields about 15 litres.

LIMITATIONS

- Do not use **SmartFlo NS** for exterior application or in areas that are in continuous contact with water.
- Do not use as a heavy duty wearing surface for industrial floors etc.
- Do not use in chemically aggressive environment.
- Do not add cement or any admixtures.
- Do not use **SmartFlo NS** at temperatures below +10°C and above 35°C.
- Working life would be shortened at higher temperature and lengthened at lower temperature.
- Avoid laying **SmartFlo NS** on a warm or hot substrates.

PRECAUTIONS

- Avoid eye and skin contact as the product is alkaline.
- Gloves, goggles and dust mask should be worn.
- Avoid inhalation of dust during mixing.
- Wash thoroughly after handling.
- In case of eye contact, flush with plenty of clean water. Seek medical help immediately.

PACKAGING & STORAGE

SmartFlo NS is supplied in 25 kg bags and has a shelf life of 12 months if stored in a cool and dry place in sealed packaging with sheltered protection from rain and sunlight.

DISCLAIMER

All information was prepared carefully, using current references available to us. Information provided is to the best of our knowledge and belief, accurate and reliable as of the date indicated. However, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself/herself as to the suitability and completeness of information provided here for their intended use. We do not accept liability for any loss or damage that may occur from the use of this information.