

# SmartFlo NS

# Normal Set Underlayment Self - Leveling

**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 primer before applying the coat.

## FIELDS OF APPLICATION

- SmartFlo NS may be applied over any interior sound concrete substrate to provide a smooth, 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 (under laboratory conditions)**

PROPERTY	TYPICAL RESULTS
Compressive Strength	
(ASTM C109 / 109M : 2008)	
@ 7 days	> 20 N/mm²
@ 28 days	> 28 N/mm²
Flexural Strength	
(ASTM C348 : 2008)	
@ 7 days	> 6 N/mm²
@ 28 days	> 8 N/mm²
Tensile Adhesion Bond Strength	
(ASTM D4541 : 2009)	> 2.5 N/mm²
Flowability	
(ASTM C1437 : 2007)	> 200 %
Open Time	30 minutes
Ready for Foot Traffic	12 hours
Water Penetration	0 mm
Coverage	0.55 m²/kg/mm

\* Above test carried out at water / powder ratio of 0.23 and temperature of 23±2°C





# **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 before laying SmartFlo NS.

## PRIMING

- The prepared surface must be primed with **SmartPrime SL** 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.
- Wait until the primer coating has formed a transparent film and become touch dry before applying SmartFlo NS.
- SmartPrime SL is to be used as supplied, without the addition of water.

## MIXING

- Mixing area should be 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.

#### 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 accurate, 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.

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#### **PLACING**

- SmartFlo NS has a long working life 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), curing is 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 m<sup>2</sup>/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 of any admixture.
- Do not use SmartFlo NS at temperature 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 substrate.

## **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 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.

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