

TECHNICAL DATA SHEET

NuCote Self-Compacting Concrete Structural Repair System

PRODUCT DESCRIPTION

NuCote Self-Compacting Concrete is a one component consisting of a blend of dry powders and graded aggregates which require only site addition of clean water to produce a highly consistent and free flowing repair concrete material.

The material additives are a blend of cement, fillers and chemical additives carefully blended to achieve rapid setting concrete with high early strength, non-shrink properties both in the plastic and hardened state and self-compacting concrete.

The product has good resistance to carbonation, freeze/thaw, chloride ingress and sulphate attack. The material is particularly design for large volume structural repairs from 50mm deep and areas that require fast return to service. It can be used both internally and externally.

ADVANTAGES

- Improved workability.
- Placement by pumping and pouring into restricted areas.
- Modulus of grout is like that of concrete.
- Excellent bond to Concrete without primer.
- Can be extended with graded aggregate in some applications locations.
- Good flow and self-compacting properties – placement with no honeycombing and vibration.
- Contains no chloride admixtures.
- Shrinkage compensated.

TECHNICAL DATA

COMPRESSIVE STRENGTH		RESULTS	
Water Ratio	1 Day	7 Days	28 Days
2.5	>30 Mpa	>70 MPa	>90 Mpa
3.2	>25 Mpa	>50 Mpa	>70 Mpa
3.5	>20 Mpa	>30 Mpa	>50 Mpa

LABORATORY TEST RESULTS		28 Days
Dimensional change Expansion (IHM)	<0.45% by Weight	
Chloride Content (IHM)	<0.5%	
Indirect Tensile Strength	2.8 N/mm	
Water Penetration	>30 Times better than low permeability concrete	

Results are affected by product storage conditions, temperature, water content, curing regime, sample quality, compaction, and equipment used to prepare samples and conduct actual testing.

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APPLICATION AREAS

- Structural repairs where there is load bearing.
- Column repairs where sections are missing.
- Restoration of concrete structures.
- Where access is limited, or heavy steel network exists.

PACKAGING

NuCote Self-Compacting Concrete is available in 25 kg bags.

STORAGE AND STABILITY

NuCote Self-Compacting Concrete has a shelf life of 12 months when stored in the original containers in a cool, dry place. Failure to do so will result in a reduction of shelf life.

SURFACE PREPARATION

Concrete substrate must be structurally sound. Remove all oil, grease, paint, corrosion, dust, and surface deposits. This can be done by wire brush or sand blasting. Apply **NuCote Epoxy Paste** to the surface. Apply grout within 36 hours.

LIMITATIONS

- Do not grout at temperatures below 9°C. Avoid excessive heat (25°C and higher).
- Wet hessian may be used to reduce the evaporation rate.
- Grout cannot be reworked by later addition of water.
- Use curing compounds for improved results.
- Minimum repair should be 20 mm.

MIXING

Dry packing consistency: Add 2.5 of water.
 Plastic consistency: Add 3.2 of water.
 Flowable consistency: Add 3.5 of water.

YIELD

Mixed with 3.2 l of water will yield 12.2 L
 Mixed with 3.5 l of water will yield 12.5 L

CLEANING

Clean hands and skin immediately after use with an industrial hand cleaner. Clean tools and equipment immediately after use with **NuCote Cleaner A**.

SAFETY AND HANDLING

Wear a dust mask when mixing NuCote Self-Compacting Concrete. Suitable gloves and eye protection should be worn at all times. Should the

product come into contact with the eyes, wash immediately and seek medical advice.

HEALTH AND SAFETY INFORMATION

In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. If inhaled move to fresh air. Consult a physician after significant exposure. If swallowed, clean mouth with water and drink afterwards plenty of water. Do not induce vomiting without medical advice. In case of skin contact, take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician when in contact with existing open wounds.

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological, and other safety-related data.

The Material Safety Data applicable to the handling of urethane raw materials should be read, understood, and rigidly adhered to. These are available on request from NATIONAL URETHANE INDUSTRIES (Pty) Ltd.

In accordance with ISO 9001:2015 and the Occupational Health and Safety Act (Act 85 of 1993), herewith Product and Safety Data Sheet.	
We hereby confirm that we have received a Product and Safety Data Sheet for NuCote Self-Compacting Concrete system and are returning the obsolete copies.	
COMPANY NAME:	
SIGNATURE:	
NAME:	
DATE:	

CAUTION

The information contained in this bulletin is to the best of our knowledge true and accurate but any recommendations or suggestions, which may be made, are without guarantee since the conditions of use are beyond our control. Furthermore, nothing contained herein shall be construed as a recommendation to use any product in conflict with existing patents covering any material or its use.

