

TECHNICAL DATA SHEET

PRODUCT DESCRIPTION

NuCote NuCem is a self-levelling, twin pack, high performance, cementitious decorative screed compound which is laid and styled according to the contractors and client preference. **NuCote NuCem** has been specially formulated to produce a hard wearing, smooth, crack free, flat surface while being very easy to apply and fast curing. This system is used in various flooring market sectors i.e.: residential seamless floors and commercial environments seeking a more modern and minimalistic look and feel.

ADVANTAGES

- Dimensionally stable.
- High flow properties
- Self-healing properties up to 20 minutes.
- Applied directly onto prepared concrete surface using NuCote NuCem Primer
- Self-levelling
- Trafficable within a few hours.
- Non-toxic
- Available in a variety of cement-based colours
- Visual Design guides available on our website

APPLICATION AREAS

- Overlayment for new floor coverings such as standard concrete, various tiles etc.
- Refurbishing of old concrete floors.
- Levelling of existing floors.
- Residential homes
- Commercial environments i.e., office blocks, shops, salons, showrooms

TECHNICAL DATA	RESULTS
Initial Flow (DIN EN 12706)	135 – 160 mm
Compressive Strength (DIN EN 13892-2)	≥ 35 N/mm ² (28 Days)
Flexural Strength (DIN EN 13892-2)	5 – 9 N/mm ² (28 Days)
Shrinkage (EN 13872)	< 1 mm/m
Tensile Adhesion Strength (DIN EN 13892-8)	≥ 1 N/mm ²
Abrasion Resistance	250 mm ³
Setting time (EN 13454-2)	> 40 Minutes

Note: The values given above are average figures achieved in laboratory tests.

PACKAGING

NuCote NuCem is supplied as a two-component 30 kg kit consisting of 25 kg powder and 5 L polymer with a yield of 15 L.

STORAGE AND STABILITY

Store in a cool, dry place on pallets off the ground. Area always to be covered and avoid direct sunlight and high humidity. Shelf life is 6 months from date of manufacture in original packaging.

APPLICATION INSTRUCTION

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, sand blasting or grinding.

PRIMING

Ensure the surface is dry and prime with **NuCote NuCem Primer** or **NuCote MT Primer** to improve the bond.

NB: It is highly recommended that all outside substrate areas be primed with **NuCote MT Primer** and fully broadcast with **NuCote Scatter Agg** before application of **NuCote Nucem**.

SUBSTRATE REQUIREMENTS

Ensure the concrete substrate has a minimum of 25 MPa in compressive strength, 1.5 MPa in tensile strength and less than 5 % moisture content. Before carrying out any work, the concrete substrate should be tested to determine the moisture vapour emission rate (MVER) according to test method ASTM F1869 or internal relative humidity (IRH) according to test method ASTM F2170 or use any approved and reliable substrate moisture testing equipment. For concrete slabs with an MVER of less than 0.21 kg/m²/24 hrs, use **NuCote GP Primer** one coat at 200 µm wet film thickness for resinous floors or **NuCote NuCem Primer** for cementitious systems. If the MVER is over 0.21 kg/m²/24 hrs use **NuCote MT Primer** one coat at 200 µm followed by another coat of **NuCote GP Primer** with scatter aggregates (whenever scatter aggregates are specified).

MIXING

Mix with a mechanical low speed mixer (maximum of 600 rpm).

Mixing water temperature: 15 - 25°C

It is important that the water/powder ratio is strictly adhered to.

Mix Part B 5 kg Liquid with the 25 kg Bag of Powder (Part A).

Mix to a consistent flowable stage, lump free.

APPLICATION

Apply **NuCote NuCem** onto the primed substrate. Drying time will depend on temperatures and the substrates.

Various floating techniques can be used to smooth and style the surface to the required look and feel of the client.

Application is normally done at 3 mm but can be applied thicker if required.

Please ensure the screed is properly dry before applying the sealer coatings as this can cause debonding and bubbling issues.

SEALING / OVERCOATING OPTIONS

The following sealers can be used to seal the **NuCem** systems again dependant on the clients and contractor's requirements.

- NuCote Sealer (Colour Retainer)
- NuCote PU Sealer (Single component water-based sealer)
- NuCote UVC Clear Gloss Coating
- NuCote UVC Clear Matt Coating

LIMITATIONS

- Do not use **NuCote NuCem** at temperatures below 15°C. Avoid excessive heat (30°C and higher).
- Slab temperature: > 15°C.
- **NuCote NuCem** will not accommodate movement cracks as it is a rigid system.
- Foot traffic is allowable in approximately 4 hours.
- Application thickness: 3 - 5 mm.

CLEANING

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

COLOURS

	Bavarian Cream
	Bittersweet
	Black Forest
	Careless Whisper
	Cinnamon Toast
	Cracker Bread
	Creme Brule
	French Nougat
	Frozen Oreo
	Mochaccino Coffe
	Mustang Alley
	Soft Serve
	Timber Wolf
	Tumbleweed
	Wild Truffle

WATCH POINTS

Humidity, moisture, and curing of the primers are essential to these systems. The Colours are not UV stable however, functional. They may discolour and fade when exposed to direct sunlight or UV. Storage is also vital to ensure the materials remain in a workable condition.

DISCLAIMER

Colours will always vary according to the printed version on our literature. These products are sold according to our standard terms and conditions of sale which is available on request and may not be overridden by any other legal documentation. Whilst the information contained herein is true, accurate and represents our best knowledge, the user must contact NuCote immediately should any complications occur. Site conditions, labour and application issues are out of our control and the contractor holds this liability. Figures for consumption are estimates and theoretical and do not allow for wastage, surface profiles that are not up to standard, porosity, variations in levels etc.

HEALTH AND SAFETY INFORMATION

Please read the Materials safety datasheet as supplied by us for this product to ensure compliance with the OHS Act NO. 85 of 1993. The finished system is not hazardous to health or environment. However, the product should not be released into sewers or surface water.

In case of contact with the 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. Avoid contact with skin. 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 epoxy raw materials should be read, understood, and rigidly adhered to. These are available on request from **NuCote**.

AUTHORISED TECHNICAL PERSONNEL

Please note that only **NuCote** Authorised Technical Personnel are permitted to change any information in this datasheet or provide recommendations concerning the use of this product. Visit www.nucote.co.za for a current datasheet and materials safety datasheet.

DATASHEET VALIDITY

NuCote makes modifications to its datasheets from time to time when needs arises. Please check the current datasheet on www.nucote.co.za to ensure you use the latest version.

WARRANTIES

NuCote supplies products that comply with the properties as shown on the current product datasheets. **NuCote NuCem** is guaranteed to be free of any manufacturing defects. In the event that products supplied are proved not to comply with these properties, then **NuCote** will replace the non-complaint product or refund the purchase price. Any suspected defects must be reported to **NuCote** in writing within five working days of being detected.

NuCote does not warrant or guarantee the installation of the products as it does not have control of the installation or end use of the products. If **NuCote NuCem** is applied in accordance with the appropriate method statement issued for the specific project, by an approved applicator, and the substrate complies with the minimum substrate requirements and contact slabs have damp proof membranes and good drainage installed prior to the casting of the concrete screed, then the system is to last for the life of the sealer or topcoat applied over it.

We discourage placing **NuCote NuCem** on slabs with questionable hydrostatic pressure issues or where residual screed moisture content exceed 5 %, on substandard substrate in terms of compressive and tensile adhesion strength, or badly prepared substrate.

NuCote makes no warranty as to merchantability or fitness for a particular purpose and this warranty is in lieu of all other representations, warranties, agreements, promises or commitment expressed or implied. NuCote shall not be liable for damages of any kind with respect to purchases or use of **NuCote NuCem**; including remote or consequential damages, down time, delays, and application failures.

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™ NuCem** system and are returning the obsolete copies

COMPANY NAME:	
SIGNATURE:	
NAME:	
DATE:	



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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.

