

TECHNICAL DATA SHEET

NuCote Impact Self-Levelling PU Coating

PRODUCT DESCRIPTION

NuCote Impact a two-component, solvent-free, flexible, polyurethane system formulated as a self-levelling application. The product reacts to form a hard, tough flexible compound, which although not UV stable has excellent impact resistance. **NuCote Impact** is also used as a part build-up layer for the **NuCote Comfort Flooring System**, offering sound deadening and flexibility properties.

AREAS OF APPLICATION

- Self-levelling system in factories with high impact.
- Workshop floors for impact resistance.
- Automotive production facilities.
- Production facilities.
- Pharmaceutical areas
- Airport hangers
- Hygienic environments
- Residential environments in our **NuCote Comfort Flooring**.

ADVANTAGES

- Excellent Corrosion resistance.
- Chemical resistant.
- Abrasion resistant.
- Excellent Impact resistance.
- Seamless.
- Permeable.
- Easy to keep clean.

TECHNICAL DATA

COMPONENT DESCRIPTION	NuCote Impact Part A	NuCote Impact Part B
Appearance	Cream, Gray, Black Viscous liquid	Brown, low viscosity Liquid
Viscosity Cps 25 °C	4 000 – 10 000	< 250
Density 25 °C	1.32 (± 0.03)	1.22 (± 0.03)

ELASTOMER PROPERTIES

DESCRIPTION	RESULTS
Density	1.2 - 1.3
Shore D Hardness	60 - 76
Tensile Strength MPa	15 – 20
Elongation %	60 – 80
Adhesive Strength (Steel) MPa	8 - 12
Permeability gm/24 Hr/M2	0.2 – 0.3
Abrasion Resistance Taber 1000 gm/1000 CyclesH10	0.01 – 0.02

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ELASTOMER PROPERTIES

Entrapment of air will tend to vary the density of the elastomer. This, as well as the degree of mixing obtained, will in turn affect the physical properties.

PACKAGING

Various.

STORAGE AND STABILITY

NuCote Impact Part A is hygroscopic and must be stored with seals intact. Partially used containers must be tightly resealed and used before opening fresh containers. Any material decanted for processing should be used immediately and not be allowed to stand open and exposed to air. Foaming, when mixed with **NuCote Impact Part A**, is an effective indicator that moisture has been absorbed. The storage life of **NuCote Impact Part A** is 6 months from date of delivery in unopened containers when stored at normal, in-door ambient temperatures (20 – 25 °C). The material should be thoroughly mixed before decanting. Protective clothing should be worn and contact with the eyes and skin avoided.

NuCote Impact Part B is a diphenylmethane diisocyanate prepolymer and will react with moisture generating carbon dioxide. The containers should be stored with the seals intact and opened containers used first. The reaction with moisture/water can lead to dangerous build-up of pressure in the drums. Therefore, partially used containers must be tightly re-sealed after use to prevent ingress of moisture. It is recommended that these drums be purged with dry air or nitrogen. Empty drums should not be closed and for safety reasons a hole should be made in the container.

NuCote Impact Part B has a storage life of 6 months from date of delivery in unopened containers when stored at normal, in-door ambient temperatures (20 – 25 °C).

APPLICATIONS

NuCote Impact Part A and **NuCote Impact Part B** are supplied in pre-weighed containers in kit form. **NuCote Impact Part A** should be well mixed before adding **NuCote Impact Part B**. After combination of the two ingredients, which should preferably be below 25°C, sufficient mixing must be undertaken to produce a homogeneous single colour compound without streaks.

It is important to ensure that material adhering to the sides and bottom of the container is incorporated into

the mix. Application of the product must be undertaken within ±12 minutes, timed from the beginning of the mixing of the two components. The viscosity will rise rapidly after 12 minutes, becoming unusable after 15 - 25 minutes (depending on ambient temperatures).

Working or usable time of the mix is highly dependent on the temperatures of the two components. Higher temperatures will shorten the working time, while lower temperatures will have the opposite effect. The cured product should however be left for a minimum of 24 hours before being put into service. The recommended coating thickness is 0.75 mm in non-abrasive environments and 1 - 3 mm where impact and abrasion are a consideration.

SURFACE PREPARATION

Mechanical preparation of the substrate is important before priming with **NuCote MT Primer** or **NuCote GP Primer** takes place. The substrate should be structurally sound and free of oil, dust and debris, grease, paint, corrosion deposits, laitance or other surface deposits. The surface should be prepared by captive blasting or mechanical grinding to exposed aggregate surface. Any cracks or bug holes should be filled with **NuCote Epoxy Paste** after application of **NuCote MT Primer**. Consult NuCote Technical sales staff for advice on substrate survey and preparation if in any doubt.

NB: Prior to 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.

All concrete surfaces to be a minimum of 20 MPa in strength or higher with minimum pull off strength of 1.5 N/mm² to ensure good adhesion. The epoxy system is only a sound as the substrate it bonds onto.

IF OVERCOATING IS TAKING PLACE

Over-coating should be undertaken within 8 - 16 hours (depending on ambient conditions). If this time period is exceeded, then the cured material should be treated as follows before over-coating:

1. Dry abrade the surface thoroughly with sandpaper to provide a mechanical key and wash down with **NuCote Cleaner A** immediately before applying a bonding agent **NuCote HB Coating** or with **NuCote Cleaner A** immediately before applying a bonding agent **NuCote HB Coating** or

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 **NuCote**[™]
FLOORING PERFECTION

DISAVOWAL: The customer acknowledges and understands that after delivery, the goods will have left the control of Rigifoam (Pty) Ltd, and that the customer will be responsible for the unpacking of and connection/installation of the goods. The customer acknowledges that it is his/her further responsibility to ensure that a fully qualified and competent person is used to install the goods to ensure their effective operation. Failure by the customer to ensure the installation of the goods, according to the written instructions of the manufacturer and/or supplier, by a fully qualified and competent person, may result in the failure of the goods, injury, loss or damages to the customer. Accordingly, and in this event, Rigifoam (Pty) Ltd accepts no responsibility for any loss or damages that might arise by reason of death or personal injury to any person engaged in the installation or use of the goods thereafter, subject to the provisions of the Consumer Protection Act 68 of 2008.

2. Wet abrade the surface with **NuCote Cleaner A** and water paper immediately before applying a bonding agent **NuCote HB Coating**.

NOTE: Elbow length GLOVES and GOGGLES must be worn when working with the above solvents. It is also recommended that a suitable primer be used to ensure good bonding between the layers of material. NuCote technicians can be contacted to assist in this regard.

COLOURS

	Grey
	Cream
	Black

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 when exposed to direct sunlight or UV. Storage is also vital to ensure the materials remain in a workable condition.

SAFETY AND HANDLING

Although **NuCote Impact Part A** is considered practically non-toxic, the usual precautions for handling chemicals should be observed. Protective clothing should be worn and contact with the body avoided.

NuCote Impact Part B should be treated as diisocyanate, and the usual precautions should be exercised when handling this family of chemicals. Protective clothing should be worn and contact with the body avoided. Inhalation of fumes must be strictly avoided and a protective mask, preferably with a remote clean air supply should be worn while spraying.

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 NUI / Rigifoam 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

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 Impact 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.

