



# Fosroc Nukote AL\*

## Two component, fast curing, flexible, aliphatic spray polyurea system

### Uses

Top coat to Fosroc Nukote systems in applications requiring 100% colour stability. Typical applications include:

- Interior or exterior concrete and metal substrates
- Areas requiring an architectural finish
- Car parks
- Airports

### Advantages

- Environment friendly - zero VOC
- Excellent thermal stability
- Very low turn-around time. The coated substrate can be put in to full service within the hour
- 100% colour stability
- Seamless and monolithic, including field joints
- Low temperature flexibility
- Meets USDA criteria
- Good chemical resistance

### Description

Fosroc Nukote AL is a two part, 100% solids, flexible, aliphatic spray polyurea coating. It displays excellent chemical resistance, thermal stability and UV resistance, thereby providing 100% colour stability.

Fosroc Nukote AL is available in various colour upon request.

### Specification

Where mentioned in the contract drawings, the interior and exterior coating shall be Fosroc Nukote AL; a 100% solids, flexible, aliphatic spary polyurea coating system, providing 100% colour stability and complying to USDA criteria. It shall also meet values stated under section "Properties".

### Properties

#### Physical properties @ 24°C

**Solids by Volume** : 100%

**Volatile Organic Compounds** : 0 g/l

**Viscosity (cps) @ 25 °C** : Comp A: 550 approx.  
Comp B: 800 approx.

**Mix Ratio** : 1A: 1B

#### Tensile Strength

**ASTM D-412** : 24MPa

#### Elongation @ 25 °C

**ASTM D-412** : 494%

#### Hardness (Shore D)

**ASTM D-2240** : 47

#### Flexibility 3mm mandrel

**ASTM D-1737** : Pass

#### 100% Modulus

**ASTM D-412** : 1350

#### 300% Modulus

**ASTM D-412** : 1925

#### Tear Strength

**ASTM D-624** : 92 kN/m

#### Fire Rating

**UBC** : Class II

#### Abrasion Resistance

**ASTM D-4060** : <60 mg loss  
1kg wt - 1000 cycles  
CS 17 Wheel

#### Processing properties @125 microns/24°C/54% RH

**Gel Time (Adjustable)** : 5secs

#### Tack Free

**(125 Microns brushed)** : 20 seconds

**Post Cure** : 24 hours

**Volume Ratio (A: B)** : 1:1

**Block Temperature** : 65°C

**Hose Temperatures (A and B)** : 65°C

**Constant Pressure** : 2000 psi

# Fosroc Nukote AL\*

## Chemical Resistance

### (ASTM D3912) 24h immersion :

Chemical Name	Results
Acetic Acid (5%)	R
Anti-freeze	R
Brake fluid (DOT3)	RC
Hydrochloric acid (20%)	R
Motor Oil	R-DIS
Sodium Hydroxide (10%)	R
Sulphuric Acid (10%)	R-DIS
Transmission fluid	R
Jet Fuel JP4	RC
Xylene	RC
Diesel Fuel	R
Gasoline	R

**Note :** R= recommended  
RC= Recommended Conditions, some effects, including swelling, Discolouration, Cracking - wash down within one hour to avoid effects  
NR = Not recommended  
DIS = Discolouration Only

## Instructions to Use

### Surface preparation

All surfaces must be smooth, sound and free from debris, loose or flaking material and areas of standing water. Surfaces must be free from contamination such as oil, grease and organic growth. Concrete surfaces must be fully cured, laitence free and free from any traces of shutter release oils and curing compounds.

To achieve the above, it is recommended that the surface be blast cleaned and all blow holes and imperfections be filled with Nitomortar FC\*† or Nitomortar FC(B)\*†. Consult the local data sheet for pot life and overcoating times.

### Priming

The concrete substrate should be primed using appropriate Fosroc Primer.

For certain steel applications, priming may not be necessary.

For application as a topcoat over another Fosroc Nukote system, priming is not necessary if the overcoating is conducted within 6 hours of application of the base coat. If the overcoat window exceeds 6 hours, priming will be necessary.

Please contact local Fosroc office for recommendation.

## Mixing

Fosroc Nukote AL should be applied by specialist application equipment and by specialist applicators approved by Fosroc.

Fosroc Nukote AL should not be diluted under any circumstance. Use appropriate solvent for purge line and flushing of equipment and if spraying stops for a period of time in excess of the potlife of the material, thoroughly mix Fosroc Nukote AL part B resin material with air driven power equipment until a homogenous mixture and colour is obtained.

## Application

This material must be applied utilizing high-pressure, heated plural component spray proportioning equipment, such as those manufactured by GlasCraft, Gusmer and Graco.

## Cleaning

Cured product may be disposed without restriction. The un-cured isocyanate and resin portions should be mixed together and disposed in a normal manner. "Drip free" containers should be disposed according to local environmental laws and ordinances.

## Limitations

- Fosroc Nukote AL is formulated for application to clean, sound concrete and steel.
- Fosroc Nukote AL should not be opened until ready to use. Adding a nitrogen blanket is strongly recommended.

## Technical support

Fosroc offers a comprehensive technical support service to specifiers, end users and contractors. It is also able to offer on-site technical assistance, an AutoCAD facility and dedicated specification assistance in locations all over the world.



# Fosroc Nukote AL\*

## Estimating

### Supply

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**Fosroc Nukote AL** : 400 litre drum sets

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### Coverage

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**Fosroc Nukote AL** : 1m<sup>2</sup>/litre  
@ 1000 microns wft per coat

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**Note:** The coverage figure is theoretical – due to wastage factors and the variety and nature of substrates, practical coverage figures may be reduced.

## Storage

### Shelf life

All products have a shelf life of 6 months if kept in a dry, air conditioned store between 5°C and 50°C in the original, unopened containers. The use of drum heaters is encouraged to reduce material viscosity at temperatures below 10°C.

### Storage conditions

Store in dry conditions at temperatures between 5°C and 50°C in the original, unopened containers. If stored at high temperatures the shelf life will be reduced.

## Precautions

### Health and safety

Fosroc Nukote AL should not come in contact with the skin and eyes, or be swallowed. When using Nucote HT ensure adequate ventilation and avoid inhalation of vapour. Some people are sensitive to resins, hardeners and solvent.

Wear suitable protective clothing, gloves and eye protection. The use of barrier creams provides additional skin protection. In case of contact with the skin, rinse with plenty of clean water, then cleanse with soap and water. Do not use solvent.

In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice. If swallowed, seek medical attention immediately – **do not** induce vomiting.

### Fire

Fosroc Nukote AL is non-flammable.

### Flash point

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#### Fosroc Nukote AL

**Pensky-Martin** : >93°C

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For further information, refer to the Product Material Safety Data.

# Fosroc Nukote AL\*

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## Additional Information

Fosroc manufactures a wide range of complementary products which include :

- waterproofing membranes & waterstops
- joint sealants & filler boards
- cementitious & epoxy grouts
- specialised flooring materials

Fosroc additionally offers a comprehensive package of products specifically designed for the repair and refurbishment of damaged concrete. Fosroc's 'Systematic Approach' to concrete repair features the following :

- hand-placed repair mortars
- spray grade repair mortars
- fluid micro-concretes
- chemically resistant epoxy mortars
- anti-carbonation/anti-chloride protective coatings
- chemical and abrasion resistant coatings

For further information on any of the above, please consult your local Fosroc office - as below.

\* Denotes the trademark of Fosroc International Limited

† See separate data sheet



## Important note

Fosroc products are guaranteed against defective materials and manufacture and are sold subject to its standard Conditions for the Supply of Goods and Service

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