



# Data sheet

## Fosroc-Nukote LP

### Low Pressure

#### Description

Fosroc-Nukote LP is NCS' low-pressure polyurea that is designed with extended gel, tack-free, and cure times to enable it to be applied using low-pressure, low-temperature application equipment. It is formulated for general-purpose use, and performs well for anticorrosion and waterproofing applications on steel, concrete, and many other substrates. It is a two component, 100% solid, pure polyurea that will significantly reduce the moisture problems that commonly cause pin holing and blistering in most polyurethane or polyurethane-hybrid systems.

Fosroc-Nukote LP can be applied at temperatures ranging from -30°C to 177°C. This aromatic polyurea elastomer displays excellent chemical resistance, thermal stability and UV resistance. Fosroc-Nukote LP can be textured easily for anti-skid purposes. The product shows very good moisture permeation resistance.

#### Features

- 100% Solids with Zero VOC's
- Excellent elongation properties
- Resistance to solvents, acids and caustics
- Seamless, resilient, will not crack or check
- Self leveling
- Excellent corrosion protection
- Low permeability
- Applicable in temperatures from -30°C to 177°C
- Performs in constant temperatures from -30°C to 125°C
- Allows use within 90 minutes

#### Typical uses

This product is designed for all of the same standard uses of Fosroc-Nukote ST, only Fosroc-Nukote LP is designed for low-pressure application equipment. Fosroc-Nukote LP can also be applied using NCS' cartridge guns.

#### Colors

Medium gray. Custom colors available upon request.

#### Packaging

Fosroc-Nukote LP is available in 38 liter kits shipped in plastic pails, 400 liter drum sets and 2090 tote sets shipped in hardened plastic, metal reinforced UN approved totes.

#### Coverage

Fosroc-Nukote LP may be applied at any rate to achieve desired thickness. Theoretical coverage for 1 mm thickness is one liter per m<sup>2</sup>.

#### Surface preparation

For optimum performance, the substrate should be hydro or sand blasted. Concrete substrates should be allowed to cure a minimum of 30 days. On concrete, Fosroc-Nukote LP should always be applied over a suitable primer for maximum adhesion. For some steel applications, a primer may not be necessary—please review your specific project with Fosroc-Nukote technicians.

For all submersed applications, a primer is absolutely essential.

#### Mixing

Fosroc-Nukote LP must 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 LP part B resin material with air driven power equipment until a homogeneous mixture and color is obtained.

#### Application

This material may be applied utilizing high-pressure, heated plural component spray proportioning equipment, but it is designed to be applied using NCS' low pressure both hand held and full size application equipment.

After proper preparation, Fosroc-Nukote LP should be applied in a cross directional (North, South, East, and West) method. Recommended DFTs are a function of the project, please contact a Fosroc-Nukote technician. On horizontal surface applications, a texture "stipple" coat can be applied for nonskid purposes, after reaching the initial desired film thickness.

Physical Properties @ 24°C	
Solids by Volume .....	100%
Volatile Organic Compounds .....	0g/l
Theoretical Coverage @ 1000 microns .....	1 m <sup>2</sup> /L
Weight per liter in kilograms .....	A:0.58
.....	B:0.51
Number of Coats .....	1-2
Mix Ratio .....	1A : 1B
Viscosity (cps) @ 25 °C .....	A:350
Viscosity (cps) @ 25 °C .....	B:550
Shelf Life @ 0-50°C .....	6-12 months
Tensile Strength ASTM D-412 .....	24.13 MPa
Elongation @ 25 °C ASTM D-412 .....	500%
Hardness (Shore A) ASTM D-2240 .....	98
Hardness (Shore D) ASTM D-2240 .....	52
Flexibility 3mm mandrel ASTM D-1737 .....	PASS
100% Modulus ASTM D-412 .....	1300
200% Modulus ASTM D-412 .....	1800
300% Modulus ASTM D-412 .....	2500
Tear Strength Die C ASTM D-624 .....	96.25 kN/m
Fire Rating UBC .....	Class 2
Flash Point Pensky-Martin .....	>93°C
Service Temperature Range .....	-30° to 125°C
Abrasion Resistance ASTM D-4060 .....	<28 mg loss
1kg for 1000 Cycles CS 17 Wheel	

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Processing Properties @ 125 microns 24°C/54% RH	
Gel Time (Adjustable) .....	20-40 sec.
Tack Free (125 Microns Brushed) .....	45-60 sec.
Post Cure .....	24 hrs.
Volume Ratio (A: B) .....	1:1
Block Temperature .....	N/A
Hose Temperatures (A and B) .....	N/A
Constant Pressure .....	N/A

Chemical Resistance	
ASTM D3912 (24 hour immersion)	
Chemical	Results @ 25°C
Acetic Acid (100%)	R
Anti-freeze	R
Brake Fluid (DOT3)	RC
Diesel Fuel	R
Gasoline	R
Hydrochloric Acid (20%)	R
Motor Oil	R-DIS
Sodium Hydroxide (10%)	R
Sulfuric Acid (10%)	R-DIS
Transmission Fluid	R
Jet Fuel JP4	RC
Xylene	RC

**R**= Recommend (No Visible Damage)  
**RC**=Recommend Conditional, Some Effects, including: Swelling, Discoloration, Cracking- wash down within one hour to avoid effects  
**NR**= Not Recommended  
**DIS**= Discoloration Only

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

**Storage**  
Six months to one year in factory delivered, unopened drums. Keep away from extreme heat, freezing, and moisture. The use of drum heaters is encouraged to reduce material viscosity at low temperatures.

**Limitations**  
Do not open until ready to use, and store in a sealed container after opening. Adding a nitrogen blanket is strongly recommended.

**Warning**  
This product contains isocyanates and curatives.



**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 Services, copies of which may be obtained on request. Whilst Fosroc endeavours to ensure that any advice, recommendation, specification of information it may give is accurate and correct, it cannot, because it has no direct or continuous control over where or how its products are applied, accept any liability either directly or indirectly arising from the use of its products, whether or not in accordance with any advice, specification, recommendation of information given by it.

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