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**DESCRIPTION:**

Nukote JF-82 is a plural component aromatic, 1:1 ratio, self-leveling, high performance polyurea caulking compound for horizontal interior and exterior applications. It is a fast set self-leveling joint sealant and repair compound designed specifically for industrial floor applications exposed to forklift, vehicular or heavy pedestrian traffic. Nukote JF- 82 is suitable for construction joints in cold storage facilities, freezers, food processing plants and other applications requiring minimum downtime or disruption. Like all aromatics, the color is unstable when exposed to UV, however the properties, performance and efficiency are not affected. The product is also well suited for repair and smoothing control joints or random cracks to accept polyurea, polyurethane and epoxy topcoats.

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**FEATURES:**

- High Solids with very low VOC. Meets California VOC and AQMD Requirements
- Easily applied by cartridge or pump
- Excellent durability
- Moisture insensitive
- Cures between -20 °F (-7 °C) and 150 °F (65 °C)
- Excellent adhesion to concrete
- Excellent thermal stability
- Retains flexibility in low temperatures
- Can be over coated with NCS Polyurea or other coatings
- Non –Toxic, USDA acceptable-meets FSIS food safety requirements
- Minimum down time 30-90 minutes

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**TYPICAL USES:**

Nukote JF 82 is used on interior concrete surfaces; to repair random cracks, control joints. Construction joints subject to hard wheeled traffic like fork lift trolleys, and other areas where down time is limited:

- Concrete construction & control joints
- Crack and joint repair for old floors
- Industrial and commercial floors
- Freezer and cold storage floors
- Food Processing Plants
- Airports
- Roofing
- Parking decks

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**COLORS:**

Standard concrete grey and Neutral. Custom colors, blended to match few RAL number, are available upon request subject to minimum quantity.

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**PACKAGING:**

100-gallon (380-liter) drum sets, shipped in metal drums of 50 gallons (190 liters) each of side A and side B  
10-gallon (38-liter) kits, shipped in plastic pails of 5 gallons (19 liters) each of side A and side B  
40-ounce (600 ml) kits 20-ounces (300 ml) each of side A and side B

<b>TECHNICAL DATA (All values @ 77 °F / 25 °C)</b>	<b>US</b>	<b>Metric</b>
Solids by volume (ASTM D2697)	95%	95%
Volatile organic compounds (ASTM D2369)	0.75lb./gal	90 gm/ lit
Theoretical coverage ( 1"x ¾" ) (25 mm x18mm) joint	25 linear feet/gal	2 linear meter/liter
Specific Gravity of materials (ASTM D792)	A -9.34 B -8.93 lbs./gal	A: 1.12, B: 1.07 kg/ liter
Viscosity at 77 °F/25 °C in cps ±10% (ASTM D4878)	A-850, B-1000	A-850, B-1000
Shelf life @ 70 °F /22 °C	12 months	12 months
Tensile strength (ASTM D412-C)	1800-2200 psi	12 to 15 MPa
Elongation (ASTM D412-C)	250-350 %	250-350 %
Hardness (ASTM D2240)	79-85 Shore A	79-85 Shore A
Tear strength (ASTM D642 )	225 to 325 pli	40 to 60 Kn/m
Service temperature (Dry)	-40 °F to 250 °F	-40 °C to 120 °C
<b>PROCESSING PROPERTIES (Under standard lab conditions)</b>		
Mix Ratio V/V	1:1	
Gel time	35 seconds	
Tack free time ( DFT & Temperature dependent)	3-5 minutes	
Shave time	60 minutes to 24 hours	
Post cure time Light traffic	90 minutes	
<i>Properties and values are highly dependent on equipment, spray gun, mix chamber temperature, pressure and related parameters. Variations are possible and expected.</i>		

**COVERAGE:**

600 ml cartridge of Nukote JF 82 will fill approximately 4 linear meters (13.2 linear feet) for a 25 x18 mm (1"x ¾" ) Joint. 1 gallon (3.78 liters) will fill approximately 25 linear meters (82 linear feet) of 25 x 18 mm (1"x ¾" ) joint.

**STORAGE:**

Twelve months in factory delivered, unopened drums. Store on pallets and keep away from extreme heat, freezing, and moisture. Nukote JF-82 should be stored between 60 ° - 90 °F (15 °-35 °C).

**MIXING:**

Nukote JF-82 may not be diluted under any circumstance. Pre-mix Nukote JF-82 Side-B material before combining with Side-A material. Side-A material requires no mixing. Add Side-A to Side-B while mixing, using a mechanical mixer at low speed. Mix until a homogeneous mixture and color is obtained (at least 5 minutes).Use care to scrape the sides of the container to ensure that no unmixed material remains. Use caution not to whip too much air into the material as this may result in pinhole blisters or shortened pot life.

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## **SURFACE PREPARATION:**

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### **Concrete:**

Allow concrete to cure 28 days before installation. Saw cut the Joint to ACI Recommendations. All Joints must be clean and dry prior to installing Nukote JF-82. If Joint is damp, dry with heat torch. Maximum moisture content should be 5% as per ASTM -F2170 & ASTM -F2420.

Profile, repair the joints and remove all dust. Joint edges must be thoroughly cleaned prior to filling, particularly if a floor sealer or densifier has been applied. If required, prime either sides of the joint with Nukote EP Prime I or Nukote EP Prime II. Construction joints should meet joint depth-width ratio and where necessary, should be adjusted utilizing a backer rod (depth should be less than or equal to 25% of the total width) Do not use backer rod or other fill material for the purpose of reducing volume. Use a debonding tape to prevent adhesion to the bottom of the joint when backer rods are not used. All movement joints should be professionally engineered based on movement, thermal cycling and product physical properties.

To repair T-Joints, the Joints should be cut a minimum of 25% of the total depth of the slab. The side of the T-joint must be cut 5/8 inch (40mm) from the Joint and a minimum of ½ inch (12.5 mm) deep. For random crack each side of the crack should be cut to create a minimum ½ inch (12.5 mm) vertical edge. Ensure that all joint edges are at 90° angles to grade with no V-grooving or feather edges. Dried silica sand, 1/16" to 1/8" (1.5 to 3 mm), may be used to fill the crack at the bottom of the joint and prevent three-sided adhesion

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## **APPLICATION:**

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Joint fillers should be applied as late as possible after construction to allow for minimal additional slab shrinkage. For best results, apply Nukote JF-82 with a 1:1 ratio low pressure plural component pump, like Graco EXP-10, or E-8p with pail heater (flooring model) with a mixing wand assembly and static mixer or a pneumatic machine pump. with similar equipment set up. Other low pressure plural component pump, or manual caulking gun with mixing wand and static mixer are other options for application. Always pre-condition the material to 75 ° - 80 °F (23 °-27 °C). Though Nukote JF-82 cures at sub-freezing temperatures at 20 °F (-7 °C), it is recommended that the product, substrate temperature and ambient temperature be at least 70 °F (22 °C) for the best performance.

After applying Nukote JF-82 wait 60-90 minutes, depending on temperatures and humidity before opening to traffic. Slice off any over pour and flush to grade after 30-45 minutes. Open to traffic once Nukote JF-82 has set. Surface can be utilized to light traffic after 90 minutes of application.

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## **EQUIPMENT CLEAN UP:**

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Cured product may be disposed without any restrictions. Mix excess A and B materials and allow to cure. Check local, state and federal laws before disposing of material.

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## **LIMITATIONS:**

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Do not open until ready to use, and store in a sealed container after opening. Adding a nitrogen blanket is strongly recommended for the 'A' component when storing after opening. Product may slightly discolor if constantly exposed to exterior UV radiation without any detrimental effect to properties.

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## **WARNING:**

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This product contains Isocyanate and curatives

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## **CHEMICAL RESISTANCE:**

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Each Nukote product formulation has varying levels of resistance to specific chemicals. Please review the chemical immersion test data included in the Nukote Test Book for general resistance to specific chemicals at specific concentration levels. Chemical concentrations are complex and when combined with temperatures above ambient

levels this complexity increases exponentially. Contact Nukote Technical Personnel for specific recommendations for chemical resistance prior to specifying these products in this application type. Consult with NCSI for more details on product and chemical resistance. The following chart is the results of Polyurea immersed in chemicals and tested as per modified ASTM D 3912.

Chemicals	Resistance	Chemicals	Resistance
Hydrochloric acid upto 10%	R	Ammonium Hydroxide 20%	R
Sulphuric Acid 15%	R	Ammonium Hydroxide 50%	RC
Phosporic Acid 10%	R	Pottasium Hydroxide 10%	R
Acetic Acid 10%	R	Pottasium Hydroxide 20%	RC
Sea water	R	Sodium Hydroxide 20%	R
Waste Water	R	De ionized Water	R
Water @ 176 °F (80 °C)	R	Diesel Fuel, Gasoline (unleaded)	R
Hydrogen Sulphide (gas)	R	Motor Oil, Brake Oil	RC
Sodium Hydroxide-50%	RC	Hydraulic Oil	R

**R = Resistant    RC = Slight surface change or discolouration with no loss of hardness**

**WARRANTIES AND DISCLAIMERS:**

*Nukote Coating Systems International, a Nevada, USA Corporation warrants that the two components of this product shall conform to the technical specifications published in the product literature. The quality and fitness of the product is dependent upon the proper mixture and application of the components by the applicator. Nukote Coating Systems has no role in the application of the finished polymer other than to manufacture and supply its two components. It is vital that the person applying this product understands the product and is fully trained and certified in the use of plural component equipment and application of plural component materials. There are no warranties that extend beyond the description on the face of this instrument, except when provided in writing, directly by Nukote Coating Systems International and executed under seal by a company officer.*