DESCRIPTION:

Nukote BG-280 is a two component, fast setting, rapid curing, flexible, high performance, high solids modified base membrane that can be applied manually by brush, roller or squeegee. It adheres well to interior or exterior concrete, plywood and metal surfaces. Nukote BG-280 can be applied at temperatures as low as 19 °F (-7 °C). It may be applied in a single or multiple layers Nukote BG-280 is also relatively insensitive to moisture and temperature allowing installations in various temperatures and humidity. Nukote BG-280 with compatible top coats are installed as a flooring system for roofing, high traffic pedestrian, vehicular traffic, commercial and industrial floors.

FEATURES:

- Environmentally friendly and safe.
- High solids with very low VOC
- Hand applied
- Non-Gassing. Can be applied at any thickness
- Can be applied on green (vented) concrete
- Good thermal stability
- Excellent low temperature flexibility
- Seamless, resilient, flexible and durable
- Tough weather resistant waterproof system
- Non-skid surface achievable in various textures and finished

TYPICAL USES:

- Is used where the convenience of using hand-applied, brush-grade material is preferred.
- Vehicular traffic decks
- Pedestrian traffic decks
- Roofs, balconies, patios, plazas, gymnasium and pool decks
- Dairy, industrial kitchen, and food processing areas
- Wet area and shower pans waterproofing
- Concrete, plywood decks

COLORS:

Standard grey only. Custom colors, blended to match any RAL number, are available upon request subject to minimum quantity.

PACKAGING:

5-gallon (19 litre) kit consisting of 4 gallons (15.2 litres) of Side A and 1 gallon (3.8 litres) of Side B.
1-gallon (3.8 liter) kit consisting of 0.8 gallons (3.03 liters) of Side A and 0.2 gallons (0.77 liters) of Side B.

COVERAGE:

Calculation for theoretical coverage: 80 ft^2/ gal at 20 mil (1.98 m2/liter at 500 microns)

STORAGE:

Twelve months in factory delivered, unopened drums at 80 ºF (25 ºC) .Store on pallets and keep away from extreme heat, freezing, and moisture. Opened and partially used material should be used within 7 days.

TECHNICAL DATA (All values @ 77 ºF / 25 ºC)	US	Metric
Solids by volume (ASTM D2697)	99 %	99 %
Volatile organic compounds (ASTM D2369)	0.04 lb./gal	5gm/ liter
Theoretical coverage	80 ft^2/gal @ 20 mils	1.98 m^2/liter @500 microns
Specific Gravity of materials (ASTM D792)	A: 7.53, B: 8.97 lbs./gal	A: 0.9, B:1.07 kg/ liter
Viscosity 77 ºF /25 ºC in cps (ASTM D4878)	A: 2000-3000, B:50-200	A: 2000-3000, B:50-200
Shelf life @ 77 ºF /25 ºC	12 months	12 months
Tensile strength (ASTM D412-C)	2400 -2600 psi	17 to 19 MPa
Elongation (ASTM D412-C)	700 - 900 %	700 - 900 %
Hardness (ASTM D2240)	80-85 Shore A	80 - 85 Shore A
Flexibility (2mm mandrel ASTM D522)	Pass	Pass
Water absorption -24 hours (ASTM D570)	~ 1.25 %	~ 1.25 %
Crack Bridging @ -13 ºF/-25 ºC (ASTM C1305), 25 cycles	Pass	Pass
Tear strength (ASTM D642)	275 – 325 pli	45 - 60 Kn/m
Impact Resistance (ASTM G14), No Holidays	> 200 in-lbf	> 22 J (N-m)
Flash point Pensky Martin	>200 °F	>93 °C
PROCESSING PROPERTIES (Under standard lab conditions)		
Mix Ratio (V/V)	4 A:1B	
Gel time	15 to 20 minutes	
Recoat time	2 to 4 hours	
Maximum over coat time	36 to 48 hours	
Properties and values are highly dependent on equipment, spray gun, mix chamber temperature, pressure and related parameters. Variations are possible and expected.		

MIXING:

Using a mechanical mixer, first pre-mix separately Part-A and Part-B base material thoroughly to obtain a uniform color, making sure to scrape the solids from the bottom and sides of the pail. Pour Part-B into Part-A slowly and while mixing, scrape the sides of the container. Mix the combined Part-A and Part-B mixture thoroughly in a circular motion until a homogeneous mixture and color is obtained. Use care not to allow the entrapment of air into the mixture.

SURFACE PREPARATION:

Concrete:
The surface of a concrete subfloor should be dry, smooth, structurally sound and free of depression, scale, or foreign deposits of any kind. Remove all curing compounds. Abrasive blast, sweep blast or water blast to remove all latent material and expose voids. Use a good quality epoxy filler or mortar for void and spall filling, skim coat or repairs. Prime, fill imperfections in the substrate surface to limit out-gassing. All concrete substrates, on or below grade level should be tested for moisture content. On-grade or below-grade concrete floors or slabs should have a moisture barrier installed to protect from ground moisture. The surface preparation of concrete should meet and conform to Joint NACE 6/SSPC-SP 13 standards and achieve a concrete surface profile of CSP 2 to CSP 5 as per ICRI Guideline No: 03732 for optimum performance.

Metal:
All surfaces should be clean and free from contamination. The surface should be assessed and treated in accordance with ISO 8504, Abrasive blast the surface to minimum NACE-2/SSPC SP-10/Sa 2.5, as per ISO 8501-1, for a visual assessment of surface cleanliness with an anchor profile of 2 to 3 mils (50 -75 microns). Soluble salts must be removed to an acceptable levels. ***Refer to NCSI surface preparation manual for detailed procedures for different types of substrates.***

Prime all the joints, cracks & flashings with Nukote EP Prime II or Metal Prime II

APPLICATION:

For best results use a squeegee or notched trowel. Airless sprayer or phenolic resin core roller may be used but extra care should be taken not to trap air which may result in bubbles. Mix thoroughly and apply evenly over the entire deck. Application should not be stopped part way across an area. Each application should be done in one complete step. A continuous application will ensure a smooth and level coat with no lines or streaks to disfigure the deck coating. When Nukote BG-280 mixed material begins to gel, broadcast 14-30 mesh rubber granules into the wet membrane or allow membrane to thicken until #1 or #2 washed dry sand, quartz, colored quartz (20 mesh, 6.5 Moh scale minimum hardness) can be broadcast without the aggregate sinking into the membrane. Time for thickening is dependent on atmospheric conditions especially temperature and humidity. Size of the aggregate should be decided based on the skid resistance requirement of the project

Allow each coat to become tack free before proceeding with subsequent coats to build up thickness. If more than 48 hours passes between coats, re-prime the surface with Nukote IC Prime, Inter-coat primer before proceeding. Allow 24 hours before permitting light pedestrian traffic and at least 72 hours before permitting heavy pedestrian or vehicular traffic on to the finished surface. Uncured Nukote BG-280 is very sensitive to heat and moisture. Higher temperatures and/or high humidity will accelerate the cure time. Use caution in batch sizes and thickness of application. Low temperature and/or low humidity extend the cure time.

EQUIPMENT CLEAN UP:

Cured product may be disposed of without restriction. Uncured Isocyanate and resin portions should be mixed together and disposed of in accordance with local regulations. Containers should be disposed of according to local environmental laws and ordinances.

WARNING:

This product contains Isocyanate and curatives

LIMITATIONS:

Do not open until ready to use, and store in a sealed container after opening. Should be used only as a base membrane. Nukote BG-280 is not UV stable and must be top coated. Not designed to withstand direct wear and abrasion. Use recommended top coat suitable for the type of application Containers that have been opened must be used as soon as possible. Any off ratio mixing of the product will affect the properties and the product may not cure. The following conditions must not be coated with Nukote BG-280. Products deck coating systems or products: on grade or below grade slabs, split slabs with buried membrane, sandwich slabs with insulation, slabs over unvented metal pan, suspended pool decks, swimming pools, lightweight concrete, asphalt surfaces and asphalt overlays Do not dilute under any circumstance.

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.