

DESCRIPTION

Nukote P-Tuff™ Classic is a solvent free, single component, liquid applied, water catalyzed, polyurethane elastomeric waterproofing base membrane.

FEATURES

- Solvent free
- High tensile
- Proven protection
- Seamless waterproofing membrane
- Not UV stable-surface protection coating is required
- Optional fast cure with added accelerator

TYPICAL USES

- Water damage
- Light auto traffic
- Concrete dusting
- Pedestrian traffic
- Tank linings and coatings
- Ship deck overlays
- Some types of chemical spills
- Concrete bridges
- Concrete or plywood decks
- Most metal, rubber, wood, or masonry surfaces

COLORS

Standard white. Custom colors, blended to match any RAL number, are available upon request.

PACKAGING

Nukote P-Tuff™ Classic is available in 3.8 liter can with a partial vial of catalyst, 19 liter pail with a full vial of catalyst and 190 liter with a 1/2 pint can of catalyst.

COVERAGE

Nukote P-Tuff™ Classic may be applied at any rate to achieve any desired thickness. Theoretical coverage for 1mm thickness is one liter per m².

SURFACE PREPARATION

Ensure that the substrate is properly prepared prior to application. Surfaces to be coated with Nukote P-Tuff™ Classic must be dry, clean, free of foreign matter, and primed with recommended NCSI Primer. Primer is optional over new plywood.

NCSI recommends that an aggregate of washed, dry, rounded, crystal silica sand, 20 mesh (0.84 mm), with 6.5+Moh's minimum hardness or rubber granules 14-30 mesh size be used to aid in slip-resistance. Applicator should determine mesh size based on job requirements.

PHYSICAL PROPERTIES @ 24°C

Solids By Volume	88 to 92%
Volatile Organic Compounds	<84 g/l
Theoretical Coverage @ 1000 Microns	1 m ² /L
Weight Per Liter in Kilograms	
Viscosity (cps) @ 25°C	
Shelf Life @ 10°C to 50°C	6 Months
Tear Resistance ASTM D-624	24.5 to 34.5
.....	kNm
Tensile Strength @ 25°C ASTM D-412	1050 to 1350
.....	N/mm ²
Elongation @ 25°C ASTM D-412	400% to 600%
Hardness ASTM D-2240	55 to 65
.....	Shore A
Adhesive Strength	MPa
Fire Rating UBC	Class
Flash Point Pensky-Martin	
Service Temperatures	-15°C to 93°C
Abrasion Resistance ASTM D-4060	<g loss
1000g/1000 Cycles CS 17 Wheel	

**PROCESSING PROPERTIES
@125 MICRONS 24°C/54% RH**

Gel Time (Adjustable)	sec
Tack Free Time (125 microns)	sec
Post Cure Time	hours
Block Temperature	
Hose Temperature	
Constant Pressure	bar

CLARIFICATION OF PROPERTY VALUES

The physical properties shown in the above table are defined in a range of values to allow for compliance when testing of sprayed films or laboratory draw down films. Results derived from independent testing will fall within the ranges shown if the testing performed complies with the standards utilized for each individual property shown. Results vary dependent on several factors, including: the equipment utilized, product mix ratios, application pressures, application temperatures, ambient temperatures, dry film thickness, age of the sample tested, etc. Results also vary dependent on the film type tested with laboratory draw down films deriving higher properties than sprayed films. Test results from films of at least 30-days in age will provide higher values than results from younger films as chemical cross-linking requires this time period to complete.

MIXING

Before application, pre-mix Nukote P-Tuff™ Classic using a mechanical mixer (Jiffy Mixer) at slow speeds or mix for at least 5 minutes, if mixed by hand. Mix Nukote P-Tuff™ Classic thoroughly until a homogeneous mixture and color is obtained. Use care not to allow the entrapment of air into the mixture. Add Nukote P-Tuff™ Catalyst (1 vial per 19 liter pail) and mix until a homogeneous mixture and color is obtained. Allow mixture to stand for 5 minutes, then mix again before applying to the substrate.

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 pre-accelerated Nukote P-Tuff™ Classic with water at a ratio of 4:1 by volume. Mix thoroughly until water is completely combined with Nukote P-Tuff™ Classic. Spread Nukote P-Tuff™ Classic mixture 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. Immediately broadcast 14-30 rubber granules into the wet membrane or allow membrane to thicken until #1 or #2 washed dry sand (20 mesh, 6.5 Moh's minimum hardness) can be broadcast without the sand sinking into the membrane. Time for thickening is dependent on atmospheric conditions especially temperature and humidity. Allow coating to cure 2-4 hours before proceeding to subsequent coats.

Nukote P-Tuff™ Classic is very sensitive to heat and moisture. Higher temperatures and/or high humidity will accelerate the cure time. Low temperature and/or low humidity extend the cure time.

NCSI does not recommend that Nukote P-Tuff™ Classic be diluted.

EQUIPMENT CLEAN UP

Cured product may be disposed of without restriction. The un-cured product 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. Equipment should be cleaned with an environmentally safe solvent, as permitted under local regulations, immediately after use.

STORAGE

Six months in factory delivered, unopened drums when stored at 24°C. Keep away from heat, freezing, and moisture.

Any remaining material must be tightly sealed to protect it against curing in its container. Containers that have been opened must be used within 1 or 2 weeks.

LIMITATIONS

Do not open until ready to use, and store in a sealed container after opening. Adding a nitrogen blanket is strongly recommended. Nukote P-Tuff™ Classic should be used only as a base membrane. The components of Nukote P-Tuff™ Classic are not UV stable and are not designed to withstand direct wear/abrasion.

WARNING

This product contains isocyanates.

CHEMICAL RESISTANCE

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.

Please read all information in the general guidelines, product data sheets, guide specifications and material safety data sheets (MSDS) before applying material. Published technical data and instructions are subject to change without notice. Contact your local NCSI representative or visit our website for current technical data and instructions.

Nukote Coating Systems International, LLC has a general product warranty and project specific warranties. Both warranties are backed by years of industry experience and insurance policies with a multinational insurance company. For information on the general product warranty please see below or contact NCSI for more information. For project specific warranties, these are available on a case-by-case basis. NCSI technicians must sign off on the specification, and in most cases a NCSI technician will be onsite during application to inspect surface preparation and application. For more detailed warranty contact a NCSI office.

NCSI has a comprehensive training program for our qualified applicators and distributors. Please contact your local NCSI office or representative or visit our website for information on our training program or for current technical data and instructions.

LIMITED WARRANTY

NCSI warrants its products to be free of manufacturing defects. Polyurea and other multi-component products are technically manufactured at the time they are mixed. When mixed in accordance with NCSI guidelines, NCSI warrants the product will meet NCSI's technical specifications. NCSI warrants its products, when properly installed over a properly prepared substrate, will perform as designed and specified.

Unless otherwise stated in writing, NCSI's sole responsibility shall be to replace the defective product. There are no other warranties by NCSI of any nature whatsoever expressed or implied, including any warranty of merchantability or fitness for a particular purpose in connection with this product. NCSI shall not be liable for damages of any sort, including remote or consequential damages resulting from any claimed breach of any warranty whether expressed or implied. NCSI shall not be responsible for use of this product in a manner to infringe on any patent held by others. In addition, no warranty or guarantee is being issued with respect to appearance, color, fading, chalking, staining, shrinkage, peeling, normal wear and tear or improper application by the applicator. Damage caused by abuse, neglect and lack of proper maintenance, acts of nature or physical movement of the substrate or structural defects are also excluded from the limited warranty. NCSI reserves the right to conduct performance tests on any material claimed to be defective prior to any repairs by owner, general contractor, or applicator.

DISCLAIMER

All guidelines, recommendations, statements, and technical data contained herein are based on information and tests we believe to be reliable and correct, but accuracy and completeness of said tests are neither guaranteed nor to be construed as a warranty, either expressed or implied.

It is the user's responsibility to satisfy themselves by their own, independent tests, to determine suitability of the product for their own intended use, application and job situation. The user assumes all risk and liability resulting from his use of the product. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements, whether in writing or oral, other than those contained herein shall not be binding upon the manufacturer, unless in writing and signed by a NCSI corporate officer. Technical and application information is provided for the purpose of establishing a general profile of the material and proper application procedures.

Test performance results were obtained in a controlled environment and NCSI makes no claim that these tests or any other tests accurately represent all environments.