



Silicone Roof Membrane



96% SOLIDS • HIGH GLOSS • SOLVENTLESS



DESCRIPTION

Nutech NXT Silicone is a ready-to use, high solids, single component, moisture cure fluid applied silicone coating. NXT Silicone is a breathable membrane possesses characteristics.

PHYSICAL PROPERTIES

Material tested complies with all the requirements of ASTM D-6694-01 Standard Specification Liquid-Applied Silicone Coating used in Spray Polyurethane Foam Roofing.

Tensile Strength:	331 PSI at 73°F. 432 PSI @ 0°F.	(ASTM D-2370)
Elongation: (break)	192% at 73°F. 216% @ 0°F.	(ASTM D-2370)
Tear Resistance: (Die C), lb f/in	37.5	(ASTM D-624)
Viscosity: (Brookfield RVF)	Typical 8,000 to 12,000 cps	#5 Spindle 20 rpm @ 77°F
Reflectivity: (White)	.70 Aged 3 yr	(ASTM C-1549)
Emissivity: (White)	.90 Aged 3 yr	(ASTM C-1371)
SRI Value:	110 Initial	
Permeance: US Perms	5.9 ±	(ASTM E-96) Procedure B
Tensile, set at 100% Elongation:	Nil.	
Temperature Stability Range:	-80 °F. to 350°F. (-37C. to 177C)	
Water Absorption:	0.1 weight % after two weeks at 75 F. (24 C.)	(ASTM D-471)
Weathering / UV Resistance:	No degradation 5000 hrs	(ASTM D-6694)
Specific Gravity:	1.30 at 77°F. (25C.)	
Tack Free Time:	1 hour	<i>Temp. & Humidity Dependent</i>
VOC:	< 10 Grams/Liter	(ASTM D-3960) EPA Method 24
Durometer Hardness:	50± 5 points	(ASTM D-2240) Shore A
Solids Content By Weight:	96% ± 2	(ASTM D-1644)
Solids Content By Volume:	96% ± 2	(ASTM D-2697)
Maximum Continuous Service Temperature:	185°F (85°C)	
Flash Point: (COC)	290°F.	(ASTM D-92)
Cure Time:	Minimum 2 hrs Maximum 8 hrs	@ 100 Deg F & 90% Humidity @ 40 Deg F & 20% Humidity
Shelf Life:	(UNOPENED CONTAINERS): 6 Months *** When Stored Between 35°F. and 75° F. ***	



APPLICATION & FEATURES

Provides elemental protection for architectural surfaces such as vertical walls, masonry, concrete, metal, single ply membranes and sprayed-in-place urethane foam systems.

STANDARD COLOURS

White, Light Grey, and Dark Grey. Special colors are available upon request at additional charge. Allow additional 15 days for non-standard colors.



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SURFACE PREPARATION All surfaces to be coated must be clean, dry, and paintable. It may be necessary to power wash and prime to enhance adhesion. If been applied to Asphalt Nutech Paint recommends one coat of Nutech Asphalt primer be applied to prevent possible Asphalt bleed. All roof joints, penetrations and surface overlaps should be re enforced with Poly Fabric as part of a priming system before Nutech Silicone is applied.

MIXING PROCEDURES No thinning or reducing is necessary. Product may separate after shipping and storage, though it may still look mixed. When mixing becomes necessary we recommend the use of a 3/4 horsepower or larger air operated mixer with a blade capable of uniformly mixing the entire container. When product is in 5-gallon pails, use a 3" minimum diameter-mixing blade. Hand mixing with a suitable mixing blade is acceptable. When product is in drums, use a 6" minimum diameter-mixing blade. If thinning is necessary, please contact Nutech Technical Department.

Containers are packaged with a layer of dry argon gas, to keep latent moisture from prematurely starting the curing process. After opening a container, try to use it up as soon as possible, or reseal with a layer of argon or nitrogen gas.

WEATHER RESTRICTIONS It is not recommended that this product be applied at temperatures below 50° F. (10° C.), or if rain is expected within 1 hours of application. This product may be applied at lower temperatures; however the cure time will be extended.

APPLICATION EQUIPMENT This product may be sprayed, brushed, or rolled. Due to the high viscosity of the material, a high-pressure airless paint pump capable of producing a minimum of 3500 PSI at the spray gun head should be used. The pump should have a minimum of 3 gallons per minute output and be fed by a 5:1 transfer pump to prevent cavitation. Always use components rated for pump pressure. Hoses should be BUNA-N jacketed for prevention of moisture contamination. Hoses should have a minimum I.D. of 3/4" and an adequate working pressure. The spray gun should be high pressure (5000 PSI) with reverse-a-clean spray tip, having a minimum orifice of .030 and a 50° fan tip.

DO NOT USE hose that has been used for Acrylics because the liner absorbs moisture and initiates the silicone cure process.

SYSTEM OPTIONS This product can be used as a topcoat over elastomeric base coats systems where improved build, traffic and impact resistant characteristics are required.

APPLICATION PROCEDURES This product may be applied directly to any clean, dry surface. Polyurethane foam should be coated within 24 hours of application.

Subsequent coats should be applied within 24 hours of prior applications to insure full and uniform adhesion. Nutech NXT Silicone can be applied in either 1or 2 coat application process (See Product coverage rates) if applying over a contrasting color separate applications of, NXT Silicone may be needed to help with coverage. Each coat applied at right angles to the previous coat will help

with uniformity. All coating must be evenly applied and pinhole-free.

Before applying any subsequent coat of NXT Silicone the previous coat must be completely dry and cured. If any contamination of a thoroughly cured surface occurs, it must be washed with a chemical cleaner before applying subsequent coats. Coating must be extended beyond the substrate to create a self-terminating flashing. Consult Nutech for recommended dry film thickness.

Due to the bond agent present in all coating, colors may be used as either a base or a topcoat. The coating will cure in 2-8 hours, dependent on weather conditions (such as temperature and humidity), after which another coat can be applied. A #11 ceramic roofing granule may be installed in the topcoat to improve aesthetics, traffic resistance and impact resistance.

RECOATING PROCEDURES This product may be used to re-coat existing spray-in-place roofing systems. Surface to receive recoat must be thoroughly cleaned using power scrubber, pressure washer, chemical cleaners, or air wand. Surface must be completely dry before applying re-coat.

SAFETY PRECAUTIONS Keep cleaning solvents away from all sources of heat, sparks, flame, lighted smoking materials, or any other ignition source. Pumping equipment should be grounded to avoid accidental ignition due to static sparks.

Avoid breathing solvent vapors. Use an appropriate MESA/NIOSH approved respirator when exposure can exceed recommended PEL. This product is not recommended for interior use. Additional care must be taken to prevent roof top HVAC equipment from introducing evaporating solvent into interior areas during application. Building occupants should be warned of spray operations in process.

Installers should exercise caution during spray processes to avoid falls caused by stepping into slippery wet coating. Installers should read and understand all technical and informational literature on this product, including the MSDS, prior to use of the product.

CLEAN UP Cleanup of spray equipment containing uncured material may be accomplished by flushing with VM&P Naphtha or mineral spirits. This product cures by reacting with moisture and should not be left in spray guns, pump equipment and hoses for prolonged periods unless equipment contains moisture lock hoses, fittings and seals. Equipment without these components will transmit sufficient moisture vapor to gradually form cured material on hose walls and at unsealed connections potentially causing an increase in operating pressure and material flow restriction



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Product Coverage Rate: Standard 10 year warrantee

Nutech NXT silicone is applied as a minimum one coat application system at coverage rate 362 SQFT per 5gallon

Nutech NXT Silicone can be applied as a two coat application system with coverage rate 181 SQFT per coat over the two coat application (*For best performance results, Nutech highly recommends the use of re enforcing Poly Fabric on all roof joints, penetrations and surface overlaps as part of a priming system before Nutech Silicone is applied.*) (see Nutech standard 10 year warrantee terms and conditions)

Product Coverage Rate: Standard 20 year warrantee

Nutech NXT silicone is applied as a minimum two coat application system at coverage rate 362 SQFT per 5gallon per coat over the two coat application. (*For best performance results, Nutech highly recommends the use of re enforcing Poly Fabric on all roof joints, penetrations and surface overlaps as part of a priming system before Nutech Silicone is applied.*)

(See Nutech standard 20 year warrantee terms and conditions)

CURE TIME: 2 - 8 hrs per coat. Full cure 12 hrs. Drying time is dependent on temperature, humidity and film thickness.

Product Limitations:

Not recommended for continuous immersion service, for use in cryogenic tar applications without a vapor barrier, or directly over modified Bitumen, asphalt or coal tar built-up roofing systems without a sealer.

Ponding Water:

NXT Silicone high solids Membrane is not affected by ponding water, however:

The National Roofing Contractors Association considers ponding water on any roof unacceptable. (See the NRCA Roofing and Waterproofing Manual).

Please contact your local supplier for any specific questions regarding the application of this product.

Flammability Characteristics:

Nutech Silicon Membrane has Class "A" Non-Combustible and Class "B" Combustible credentials as tested under UL 790 procedures over spray foam and single ply roofing systems. Contact CFS or refer to the UL directory for specific information.

ORDERING INFORMATION: Available in 5-gallon pails (19 liters), and in 55-gallon drums containing 50 gallons (189.3 liters.)

SHIPPING INFORMATION:

<u>Container Size</u>	<u>Class</u>
5 Gal. 55	
50 Gal.55	

D.O.T. Classification: Roof Coating, Not Regulated, NFMC #170080

HMIS® Rating:

Health 2, Flammability 1, Reactivity 0, Protection X

0= Minimal 1=Slight 2=Moderate 3=Serious 4=Severe

Refer to Nutech Material Safety Data Sheet for additional safety and user information before using or opening the container.

Important Note

The information given on this data sheet is based on many years experience and is correct to the best of our knowledge. However since the use of our product, surface conditions, weather and a number of other factors are completely beyond our control, we can only be responsible for the quality of our product at the time of dispatch. For more information please contact our Company. As this information is of a general nature, we cannot assume any responsibility in individual cases.

