

PRODUCT DATA SHEET

Sikalastic®-320 NS

SINGLE COMPONENT, NON-SAG, BITUMEN MODIFIED WATERPROOFING MEMBRANE

PRODUCT DESCRIPTION

Sikalastic®-320 NS is a single component, Non-Sag, liquid applied, bitumen modified, coal tar free, moisture cured polyurethane waterproofing membrane.

USES

- Planters
- Between Slabs
- Plazas and Pavers
- Foundation Walls
- Bridges and Tunnels

CHARACTERISTICS / ADVANTAGES

- Easy Application
- Applies on green and damp concrete
- Can be applied horizontally and vertically
- Alkali Resistant
- Quick Re-coat time
- Apply vertically up to 90 mils
- Solvent Free
- Meets the requirements of ASTM C 836
- Ability to catalyze with water
 - Faster cure rate
 - Reduce chance of pinholes from concrete outgassing

PRODUCT INFORMATION

Packaging	5 gallon (18.9 liter) pail. 55 gallon drum, net fill 50 gallons (189 liters)	
Shelf Life	12 months from date of manufacture in original, factory-sealed containers	
Storage Conditions	Store indoors at temperatures between 65–85 °F (18–30 °C)	
Color	Black	
Solid content by mass	96 ± 2 %	(ASTM D-236)
Solid content by volume	95 ± 2 %	(ASTM D-2697)
Viscosity	350 ± 100	(Poise at 80 °F)

TECHNICAL INFORMATION

Shore A Hardness	30 ± 5	(ASTM D-2240) 75 °F (24 °C) 50 % R.H.
Tensile Strength	450 ± 50 pli	(ASTM D-412) 75 °F (24 °C) 50 % R.H.
Elongation at Break	450 ± 50 %	(ASTM D-412) 75 °F (24 °C) 50 % R.H.
Tear Strength	100 ± 15 psi	(Die C, ASTM D-624) 75 °F (24 °C) 50 % R.H.
Service Temperature	-25–200 °F (-31.7–93.3 °C)	
Water Vapor Transmission	1 ± 0.2 Perms	(ASTM E-96, Procedure B - Wet Cup) 75 °F (24 °C) 50 % R.H.

APPLICATION INFORMATION

Coverage	50 ft ² /gal results in 30 ± mils DFT 25 ft ² /gal results in 60 ± mils DFT (standard) 18 ft ² /gal results in 90 ± mils DFT 13 ft ² /gal results in 120 ± mils DFT
Waiting / Recoat Times	Application on Green Concrete Horizontal: 48 hours or walkable conditions Vertical: 24 hours after forms removed

BASIS OF PRODUCT DATA

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

LIMITATIONS

- Higher temperatures and/or high humidity will accelerate the cure time. In cold weather conditions, use pail warmers or preconditioning to assist in workability.
- Containers that have been opened must be used as soon as possible.
- For applications on light weight concrete, the substrate must have a compressive strength of at least 4000 psi and a minimum tensile strength of 200 psi at 28 days, contact Sika Technical Services prior to application.
- Not recommended for asphalt surfaces.
- For applications on Oriented Strand Board (OSB), contact Sika Technical Services prior to application
- Membrane should not be applied under thin set tile.

Mortar beds applied above Sikalastic® 320 should be at least 2" thick.

- Substrate temperatures should be greater than 40 °F and less than 110 °F.
- Do not apply to porous or damp surfaces where moisture vapor transmission will occur during application and cure. Exposure to direct sunlight can exacerbate vapor transmission during cure. Apply Sikalastic® 320 in shaded areas and/or during falling temperatures or contact Sika for use of suitable primer in this situation.
- Sikalastic®-320 NS must not be submerged or subject to ponding water.
- Sikalastic®-320 NS must not be exposed to sunlight or UV radiation for more than 14 days.
- All surfaces where Sikalastic®-320 NS is applied must be "sloped to drain" to prevent standing or ponding water.
- Contact Sika Tecncal services prior to using Sikalastic®-320 NS on Plaza Decks where vegetation is planned.

ENVIRONMENTAL, HEALTH AND SAFETY

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

Surface must be clean, dry and sound with an open texture. Remove dust, laitance, grease, curing compounds, bond inhibiting impregnations, waxes, and any other contaminants. All projections, rough spots, etc. should be dressed off to achieve a level surface prior to application.

Concrete - New concrete must be cured a minimum of 28 days prior to application. Old concrete must be free of loose aggregate, dirt and be dry. New and old concrete should be Shot-, Water- or Abrasive-blasted. Grease spots and oil should be chemically cleaned with appropriate cleaners or mechanically removed.

Green Concrete (less than 28 days): Sikalastic®-320 NS must be applied direct on green concrete without primer. Substrate must have an open textured surface to allow Sikalastic®-320 NS to achieve adhesion. If green concrete surfaces have Concrete Surface Profile (CSP) of 2 to 5, powerwashing the surface may be the only surface preparation method required to remove any concrete laitance. If the green concrete surfaces do not have a Concrete Surface Profile (CSP) of 2 to 5, reprofiling by blast cleaning and grinding are considered acceptable means to achieve the desired surface profile. Acid and chemical etching are not acceptable means to achieve the desired surface profile. Some warranties require primer, consult Sikalastic 320 System Guidelines for requirements and/or additional information prior to application.

Plywood - The only acceptable grade of plywood is APA rated exterior grade or better. The appearance and physical characteristics of the plywood and grade should be considered. Plywood should be new or cleaned and sanded.

Metal - Metal must be in sound condition. The surface should be free of all visible oil, grease, dust, dirt, mill scale, rust, coating, oxides, corrosion products and other foreign matter. Be aware of dew point and check it before every application on metal surface.

- **Ferrous Metals:** Must be prepared to SSPC-SP6/NACE 3. For areas where SSPC-SP6/NACE 3 is prohibited or not feasible, substrate can be thoroughly cleaned by grinding or other power tools per SSPC-SP11.
- **Non-Ferrous Metals:** Prepare to a bright metal surface. Wire brushing can be used for soft metal such as copper or lead.

- **Galvanized Steel:** White rust must be removed from galvanized steel, with care taken not to damage or remove the galvanizing.
- **Stainless Steel:** Must be mechanically abraded or ground to create an appropriate anchor profile.

PRIMING

Some warranties and/or substrates may require the use of a primer. See “Sikalastic® 320 Warranty Guidelines” for more information.

For applications with primer over concrete, the primer used will depend on the moisture level of the concrete. Measure the moisture content of concrete substrate with a Tramex CME or CMExpert type concrete moisture meter.

Do not prime over an existing crack and joint detail coats.

PRIMER SELECTION

Sikadur®-22 Lo-Mod FS - For concrete with a maximum moisture content of 4 % by weight, plywood decks, aluminum, steel, carbon steel, stainless steel, and existing polyurethane coatings, apply a single coat application of Sikadur®-22 Lo-Mod FS with a flat squeegee or roller at approximately 160 sf/gal. Apply evenly without puddling. Allow primer to cure until tack-free, typically 2-4 hours (at 75°F (24°C) 50% R. H). Sikadur®-22 Lo-Mod FS should be overcoated within 36 hours after tack-free. Refer to a separate product data sheet for additional information.

Sikalastic® FTP Lo-VOC Primer - For plywood decks, concrete with a maximum moisture content of 5 % by weight, apply a single coat of Sikalastic® FTP LoVOC Primer with a flat squeegee or roller at approximately 175 sf/gal. Work primer well into the substrate to ensure adequate penetration and sealing. Apply evenly without puddling. Refer to separate primer data sheet for additional information.

Sikalastic® MT Primer - For concrete with a maximum moisture content of 5 % by weight, apply a single coat application of Sikalastic® MT Primer with a flat squeegee or roller at approximately 175 sf/gal. For concrete decks with a maximum moisture content of 6% by weight, apply two applications of Sikalastic® MT Primer with a flat squeegee or phenolic resin roller at approximately 175 sf/gal per application. Work primer well into the substrate to ensure adequate penetration and sealing. Apply evenly without puddling. Refer to a separate primer data sheet for additional information.

Sikalastic® EP Primer/Sealer- For Wood (timber, plywood) and Metal (steel, carbon steel, galvanized steel, stainless steel, aluminum, brass, lead, copper). Apply by brush or phenolic resin core roller at the recommended rate, 100-250 sf/gal depending on the substrate. Correct amount of primer will saturate the substrate and leave a slight film on the substrate top surface. Apply evenly without puddling. Refer to separate primer data sheet for additional information.

Sikalastic® PF Lo-VOC Primer - For concrete with a porous or rough surface and a maximum moisture content of 4 % by weight, plywood decks and steel, use Sikalastic® PF Lo-VOC Primer. Apply Sikalastic® PF Lo-

VOC Primer with a flat squeegee or phenolic resin core roller at approximately 200 sf/gal. and work well into the substrate to ensure adequate penetration and sealing, and puddles are avoided. Refer to separate primer data sheet for additional information.

NOTE: For rough or porous concrete or when outgassing is a concern, use Sikadur® 22 Lo-Mod FS, Sikalastic FTP LoVOC or Sikalastic® PF LoVOC Primer at an approximate rate of 80-160 sq.ft./gal. This rate may vary on the porosity of the substrate. The surface must be totally covered with primer with no dry spots or spots where the primer has completely absorbed into the substrate, multiple coats may be required. Allow primer to become tack free before proceeding to the next phase.

MIXING

Sikalastic®-320 NS should be thoroughly mixed using a mechanical mixer and jiffy style paddle at slow speed for a minimum of 2 minutes to ensure a homogeneous material. Take care not to allow entrapment of air into the material. Do not mix in an up and down motion.

Optional Water Catalyst:

Mix Sikalastic®-320 NS using a mechanical mixer and jiffy style mixing paddle at a slow speed. At a ratio 1 part of water to no less than 40 parts Sikalastic®-320 NS. For a 5 gal pail, add 1 pint (16 oz) of water (less water may be used to extend working time). Use care not to allow the entrapment of air into the mixture. Do not mix in an up and down motion. Once water is mixed with Sikalastic®-320 NS apply within 20 minutes.

APPLICATION

DETAILING:

For moving and non-moving cracks less than 1/16"

width: Apply a 30 mil detail coat of Sikalastic®-320 NS, extending 2" on either side and centered over the crack.

For cracks 1/16" width or greater and less than 1" width:

Must be routed to at least ¼" by ¼", and sealed with an appropriate Sikaflex® sealant, installed per sealant Product Data Sheet, and coated with a 30 mil detail coat of Sikalastic®-320 NS, extending 2" on either side and centered over the crack. Non-moving cracks can be filled with compatible rigid repair materials.

NOTE: Cracks may indicate a structural issue and should be addressed by a structural engineer or appropriate design professional.

For joints 1/16" or greater and less than 1.5" width:

Joints should be sealed with the appropriate Sikaflex® sealant, installed per sealant Product Data Sheet, and coated with a 30 mil detail coat of Sikalastic®-320 NS, extending 2" on either side and centered over the crack.

For expansion joints 1.5" or greater width: Should be treated as expansion joints and brought up through the Sikalastic®-320 NS membrane and/or Emseal Expansion Joint System, Sikadur Combiflex SG or other appropriate joint sealing system should be used. Contact Sika Technical Services for recommendations prior to application.

Fabric reinforcement - Sika does not require reinforcing of the detail coat when going over cracks and joints. In situations where reinforcing detail coats is required, use a 3" wide strip of Sika Flexitape Heavy as the reinforcing. Please see the Sika Flexitape Heavy product data sheet for installation instructions.

APPLICATION:

Sikalastic®-320 NS may be applied with a brush, squeegee, trowel, or roller. Apply up to 90 mils vertically and 120 mils horizontally per coat. Mix Sikalastic®-320 NS with water to greatly reduce the chance of pinhole formation from concrete out-gassing and improve cure rate. Cured membrane must be pinhole free after application to validate warranty. (Contact Sika Technical Services for Plaza Deck applications where vegetation is planned).

CURING AND RECOATING:

At 75 °F (24 °C) and 50 % relative humidity, allow each coat of Sikalastic®-320 NS to cure 16–24 hours minimum. When using water as a catalyst: allow Sikalastic®-320 NS to cure a minimum of 2–4 hours before proceeding to subsequent coats. If more than 48 hours pass between coats the surface must be solvent wiped and primed with Sikalastic® Recoat Primer.

FLOOD TEST:

After Sikalastic®-320 NS has cured (16-24 hours), plug drains, and provide proper means to contain flood water. Flood deck with a 2" head of water and allow to stand for 24 hours. Check for leaks and immediately make repairs if required. Retest after any repairs have been made. If a flood test cannot be completed within 3 days of application, cover Sikalastic®-320 NS with a protection course to prevent damage from other trade work until a successful flood test is completed.

MEMBRANE PROTECTION:

As soon as possible after completion of a successful flood test, visual inspection and/or repairs, cover membrane with an approved drainage mat or protection board. Sikalastic®-320 NS should not be exposed to sunlight or UV radiation for more than 14 days.

CLEANING OF TOOLS

Equipment should be immediately cleaned with an environmentally safe solvent, as permitted under local regulations.

OTHER RESTRICTIONS

See Legal Disclaimer.

LEGAL DISCLAIMER

- KEEP CONTAINER TIGHTLY CLOSED
- KEEP OUT OF REACH OF CHILDREN
- NOT FOR INTERNAL CONSUMPTION
- FOR INDUSTRIAL USE ONLY

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Product Data Sheet

Sikalastic®-320 NS
September 2023, Version 01.10
020915255000000005

• FOR PROFESSIONAL USE ONLY

Prior to each use of any product of Sika Corporation, its subsidiaries or affiliates ("SIKA"), the user must always read and follow the warnings and instructions on the product's most current product label, Product Data Sheet and Safety Data Sheet which are available at usa.sika.com or by calling SIKA's Technical Service Department at 1-800-933-7452. Nothing contained in any SIKA literature or materials relieves the user of the obligation to read and follow the warnings and instructions for each SIKA product as set forth in the current product label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product.

SIKA warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Product Data Sheet if used as directed within the product's shelf life. User determines suitability of product for intended use and assumes all risks. User's and/or buyer's sole remedy shall be limited to the purchase price or replacement of this product exclusive of any labor costs.

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