

noraplan environcare™ nTx 3.0mm SHEET

1 Product Name / Manufacturer

1.1 Product

noraplan environcare™ nTx 3.0mm sheet goods resilient floor covering, Article 157A

1.2 Manufacturer

nora systems, Inc.
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1.3 Product Description

nora® vulcanized rubber compound 913 with environmentally compatible color pigments that are free of toxic heavy metals like lead, cadmium or mercury.

1.4 Physical Characteristics

Material Size: ~39.7' x 48" (~11.8m x 1.22m)
≥ amount specified

Thickness: ~0.012" (~3.0mm)

Dimensional Stability: Meets requirements

Composition: Homogeneous rubber compound with a random scattered design.

Color: 5 Standard colors; additional colors available with minimum order

Surface: Smooth

2 Technical Data

2.1 Static Load Limit

ASTM F970, Residual compression of 0.003" with 800 lbs. achieved, ≤ 0.005" with 250 lbs. is required.

2.2 Rolling Load Limit

≤ 550 lbs. /sq. inch, with no forklift traffic.

2.3 Slip Resistance

ASTM D2047 Static coefficient of friction, Neolite dry 0.93, Neolite wet 0.91 achieved, ≥ 0.5 is required (not recommended for ramps).

2.4 Flammability

ASTM E648; NFPA 253; NBSIR 75 950, .82 achieved, ≥ 0.45 watts/sq. cm for Class 1 is required.

2.5 Smoke Density

ASTM E662; NFPA 258; NBS, 282 (flaming) and 155 (non-flaming) achieved, < 450 is required.

2.6 Bacteria Resistance

ASTM E2180 and ASTM G21, resistant to bacteria, fungi, and micro-organism activity.

2.7 VOC's

This flooring is GREENGUARD Gold Certified for Low VOC Emissions, Blue Angel Certified and CA 01350 Compliant.

2.8 Sound Absorption

ASTM E2179 Δ IIC 14, ISO 140 Δ Lw 10 dB (compare only Δ values).

2.9 Hardness

ASTM D2240, Shore type "A", 92 achieved, ≥ 85 is required.

3 Installation

3.1 Site Conditions

The area to receive flooring, must be fully enclosed, weather tight and climate controlled at the normal service ambient temperature and humidity (except for walk in freezers or similar) or 68°F ± 5°F and 50% ± 10% ambient relative humidity (RH) for 48 hours before, during and 72 hours after the installation.

The flooring and all accessories must be acclimated within this area or nearby with the same climate condition for at least 48 hours prior to installation. Areas of the flooring subjected to direct sunlight, for example through doors or windows, must have them covered using blinds,

curtains, cardboard or similar for 24 hours prior, throughout and for a period of 72 hours after the installation.

nora flooring must not be installed when dew point occurs (a surface temperature at which condensation occurs). The substrate surface must be at least 5°F above dew point when using nora nTx products. Example: If the ambient conditions are 70°F and 65% RH, the dew point is 57°F and you must not proceed with the installation, unless the surface temperature is at a minimum of 62°F. Dew point calculation charts are available on the web.

3.2 Substrates

Concrete - New Construction with Slab Internal Relative Humidity of 85%RH or Below:

All concrete subfloors on or below grade must have a permanent effective vapor retarder with a minimum thickness of 0.010 inches and a permeance of 0.1 y, as described in ASTM E1745 *Standard Specification for Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs*, is required under all on- or below-grade concrete floors.

The concrete subfloor should not be subject to shrinking, curling, cracking or moving in any way prior to the application of any nora products.

nora systems, Inc., accepts no liability for failure or complaint due to slab movement of any kind. Do not install over expansion joints; use a purpose built expansion joint covering system. Clean out all dormant saw cuts and cracks to remove any laitance, dirt, debris, sealers and any visible moisture. To achieve this, use a suitable dustless concrete saw with a diamond blade or similar. If you are not sure they are dormant, contact the nora Technical Department.

The concrete surface must be clean and smooth enough to prevent any surface irregularities from telegraphing through the flooring. All sealers or film forming curing compounds on the surface of the concrete must be removed by mechanical means. Use a Diamabrush™ Concrete Prep Plus Tool 100-grit (available from nora) or 25-grit on a rotary sanding machine. For large areas a light shot-blasting or brush-blasting may be the preferred method to remove it. Perform a Water Droplet Test in a sufficient number of places throughout the project to be certain of its removal.

Surface cracks, grooves, depressions, control joints or other non-moving joints, and other irregularities must be filled or smoothed with latex modified patching or underlayment compound for filling or smoothing, or both. Patching or underlayment compound must be moisture-, mildew-, and alkali-resistant, and, for commercial installations, must provide a minimum of 3000 psi compressive strength when tested in accordance with ASTM C109/C109M *Standard Test Method for Compressive Strength of Hydraulic Cement Mortars - Using 2-in. or 50mm Cube Specimens* or ASTM C472 *Standard Test Method for Physical Testing of Gypsum, Gypsum Plasters and Gypsum Concrete*, whichever is appropriate. Warranties should be obtained by the manufacturers of the products used.

Concrete - New Construction with Slab Internal Relative Humidity 86%RH and above: Same as above except for the patching & leveling compound materials. The products used must have no moisture vapor emission limitations and be capable of being used on slabs that are tested to 100%RH, and have a minimum of 3,000 psi compressive strength. Warranties should be obtained by the manufacturers of the products used.

Concrete – Refurbishment:

The concrete surface must be free of old adhesive residues, curing compounds, sealers or any other contaminate that could be considered a bond breaker. It must be clean, absorptive and smooth enough to prevent any surface irregularities from telegraphing through the flooring. Shot-blasting or brush-blasting is the recommended method to prepare the concrete surface; however, Scrape-Away cutter blades on a rotary sanding machine may be required first to remove heavy accumulations of old adhesives. The use of a Diamabrush™ Concrete Prep Plus Tool to prepare the concrete surface is acceptable; however, it is a slower and more time-consuming method.

Perform the Water Droplet Test in a sufficient number of places throughout the project to be certain of its proper surface contaminant removal.

Surface cracks, grooves, depressions, control joints or other non-moving joints, and other irregularities must be filled or smoothed with latex modified patching or underlayment compound for filling or smoothing, or both. Patching or underlayment compound must be moisture-, mildew-, and alkali-resistant, and, for commercial installations, must provide a minimum of 3,000 psi compressive strength when tested in accordance with ASTM C109/C109M *Standard Test Method for Compressive Strength of Hydraulic Cement Mortars - Using 2-in. or 50mm Cube Specimens* or ASTM C472 *Standard Test Method for Physical Testing of Gypsum, Gypsum Plasters and Gypsum Concrete*, whichever is appropriate. Warranties should be obtained by the manufacturers of the products used.

Note: Patching and leveling compounds are not vapor barriers. When selecting products for use in refurbishment projects, it is a requirement that they do not have moisture limitations. The only exception to the requirement is if proper moisture testing has been performed and documented following the protocol of "ASTM F2170 *Standard Test Method for Determining Relative Humidity in Concrete Slabs Using in situ Probes*" and the moisture test results are \leq 85%RH. In addition, if on or below grade then it must also have a confirmed working vapor retarder that meets the current requirements of ASTM E1745 *Standard Specification for Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs*. The vapor retarder must be placed directly underneath the concrete, above the granular fill.

Wood subfloors:

All wood subfloors must be a total minimum thickness of 1-1/4 inch and overlaid with overlapping joints using APA (American Plywood Association) underlayment grade plywood, installed as per ASTM F1482 *Standard Practice for Installation and Preparation of Panel Type Underlayments to Receive Resilient Flooring*.

Wooden substrates must not be in direct contact with concrete subfloors, even if built on sleepers. All suspended wood floors must have adequate under floor ventilation and a permanently effective vapor retarder or membrane placed directly on the ground beneath the air space. Do not install over oriented strand board (OSB), particleboard, Masonite, lauan, fire retardant

treated plywood, or any similar unstable substrates.

The plywood must be clean and free of any bond breaking contaminants, this may be achieved by sanding if required or replacing the plywood with new APA plywood. Any gaps at the seams must be filled and smoothed with suitable and flexible joint filler. Any ridges must be sanded smooth.

Galvanized/Stainless Steel and Aluminum subfloors:

Abrade the existing galvanized/stainless steel or aluminum by using mechanical systems – i.e., disk sander with 40-grit sandpaper. Clean the galvanized/stainless steel, or aluminum by sweeping and then wiping with 70% Isopropyl alcohol. Perform a mat bond test for the nora nTx 020 bonding agent as described in this nora nTx Installation Guide.

Regular Steel Subfloors:

All rust must be removed by sand blasting or other mechanical methods. To prevent the steel from rusting again, a primer such as Sherwin-Williams Re-coatable Epoxy Primer (Re-coatable Epoxy Primer; Part G-B67R5, Part H-B67V5 Hardener) or similar must be applied to the steel subfloor. Contact the Sherwin-Williams Company at 216-566-2902 for complete SDS and product installation instructions. Use only in well ventilated areas. Perform a mat bond test for the nora nTx 020 bonding agent as described in the nora nTx Installation Guide.

Over existing floor coverings:

nora nTx can be installed over existing smooth finished, non-cushioned backed and securely bonded floor coverings (e.g. VCT, natural rubber, linoleum, PVC). The existing flooring must not have any voids that could telegraph through the nora flooring. nora nTx can also be installed over properly prepared existing terrazzo, ceramic and quarry tile floors.

Note: The responsibility for determining if the old resilient flooring is well-bonded to the subfloor and is not textured or embossed enough to show through the new installation rests with the owner, general contractor and flooring contractor. Installations over existing resilient flooring may be more susceptible to indentations.

nora[®] nTx 020

It is mandatory to use nora nTx 020, which is a surface bond enhancer for all nora nTx installations over properly prepared substrates. The installer must determine the suitability of the subfloor and final substrate to be covered. Bond tests are required for nora nTx 020 (refer to the Bond Test section in the nora nTx installation guide).

Bond Test

It is the responsibility of the installing party to determine the suitability of the subfloor being covered. Bond tests are required for nora nTx 020 applied directly over the properly prepared subfloor.

This will help to determine the compatibility of the preparation method and products. Select the amount of tests and the appropriate locations. Each test plot should be approximately 1 square foot. Apply nora nTx 020 following the protocol described in the nora nTx Installation Guide. Note: Bond testing of the nora flooring itself is not required as that is not being evaluated.

After the nora nTx 020 is fully cured, (approximately 1 to 2 hours) use a razor scraper and attempt to remove it from the substrate. If the nora nTx 020 can be removed in 1/2 inch sized pieces or greater, contact the nora Technical Department immediately (please forward photos.) If the nora nTx 020 is very difficult to remove then it can be deemed acceptable and you may proceed with the installation.

3.3 Heat Welding

Optional (if required) nora[®] heat welding rod. Refer to the nora[®] nTx Installation Guide.

3.4 Cold Welding

Optional (if required) nora[®] cold weld. Refer to the nora nTx Installation Guide.

3.5 Flash Coving

Optional (if required) – Refer to the nora nTx Installation Guide.

3.6 Installation Guidelines

Refer to the nora nTx Installation Guide. For complete details go to www.nora.com/us.

4 Care and Cleaning

Refer to noraplan[®] product maintenance guides. For complete details go to www.nora.com/us.

5 Warranty

nora nTx limited 5-year warranty and limited 5-year warranty. See nora[®] nTx and nora[®] Limited Warranties. For complete details go to www.nora.com/us.

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