

General Information

The Novalis NV-GLU is a specially formulated acrylic adhesive used for the permanent installation of Novalis glue down vinyl floor coverings. The NV-GLU is water-based, easy to apply and incredibly strong. The NV-GLU

is also resistant to high levels of moisture and alkalinity, whether topical or from the substrate.

The NV-GLU is easy to clean up, wet or dry, and will not mar or etch the surface of floor covering.




Adhesive Features

- **Excellent Initial Grab**
- **Excellent Shear Strength**
- **Easy To Clean-Up**
- **Will Not Mar or Discolor Flooring**
- **Low VOC**
- **FloorScore Certified**
- **CRI Green Label Plus Certified**

Technical Information

Unit Sizes:	1 Gallon & 4 Gallon Pails
Unit Weight:	1 Gallon: 17 lbs. (4.08 kg.) 4 Gallon: 31.97 lbs. (14.5 kg.)
Base Polymer:	Acrylic
Color / Consistency:	Beige Paste w/ Green Tracers
pH of Adhesive:	7.25
VOC Emissions:	< 1 g/l
ASTM D7149 Freeze Thaw:	Stable, 5 Cycles @ 0° F
Coverage Rate / Gallon:	125 - 250 sq. ft. (depending on trowel)
Coverage Rate / 4 Gallon Pail:	500 - 1000 sq. ft. (depending on trowel)
Open/Flash Time:	15 - 30 minutes (dry to touch)
Working Time:	4 hours
Light Foot Traffic Limit:	Immediate
Heavy Foot Traffic / Rolling Loads:	12 Hours
Heat Welding:	12 Hours
Maintenance:	12 Hours
Shelf Life:	2 Years
Storage Temperature:	40° - 90°F (4° - 32° C)
Acclimation / Installation Temperature:	60° - 80°F (16° to 32° C)
Installation Humidity:	35 - 65% (≥ 10°F Above Dew Point)

Spread Rate Chart

Trowel Size	Spread Rate	
 1/32" x 1/16" x 1/32" U Notch (FFA)	175 - 200 sq. ft. per gallon	4.2 - 4.9 sq. m. per litre
 1/16" x 3/32" x 1/16" U Notch (AVF)	150 - 175 sq. ft. per gallon	3.6 - 4.2 sq. m. per litre
 1/16" x 1/16" x 1/16" Square Notch (FCA)	125 - 175 sq. ft. per gallon	3 - 4.2 sq. m. per litre

For information on the correct trowel to use, see the flooring installation instructions. Using an unspecified trowel may affect the adhesive coverage and adhesion to the flooring or substrate.

Product Limitations

All published times and coverage rates are subject to substrate conditions, such as porosity and flatness, and ambient conditions, such as ambient air temperature, relative humidity and substrate temperature. Actual times and coverage rates may vary. For indoor use only - do not install in outdoor conditions. Do not install if ambient temperatures and humidity levels are outside of prescribed range or if conditions have reached dew point. Do not install adhesive over substrates which contain known or obvious contaminants, excessive moisture or hydrostatic pressure. Adhesives cannot resist extreme dimensional instability of flooring materials, which may cause gapping, cupping, buckling and/or edge lifting. Do not install over existing materials without consulting the substrate preparation guidelines.

1. GENERAL INFORMATION

Receiving Material & Storage: Remove all plastic and strapping from the product after delivery. Confirm that the adhesive is approved for use with the flooring, especially in the event you've received more than one. Carefully check all materials for shipping damage and note all damage on the bill of lading before accepting the delivery. Material accepted with visible shipping damage that is not reported on the bill of lading will not be covered under warranty. The floor covering and adhesive must be stored in dry indoors conditions between 40°F and 90°F (4°C - 32°C). Do not store outside (even in containers) and do not stack pallets.

Recommended Tool List:

- Appropriate Personal Protective Equipment (PPE)
 - Safety Glasses, Cut-Resistant Gloves, Suitable Dust Mask, etc.
- Appropriate Tools & Machinery for Substrate Preparation
 - Floor Buffer, Grinder, Floor Scraper, etc.
- HEPA-Filtered Vacuum
- 6-ft. and 1-ft. Straight Edge or Level with two quarters (U.S. coins)
- Appropriate Adhesive Trowel/Blade (see flooring requirements)
- 100 lb. Three Section Roller
- Non-Contact Infrared Thermometer
- Knee Pads

Warning: All local, state, and federal regulations must be followed; this includes the removal of in-place asbestos flooring and adhesive, as well as any lead-containing materials. The Occupational Safety and Health Administration (OSHA) has exposure limits for people exposed to respirable crystalline silica; this requirement must be followed. Do not use solvent or citrus-based adhesive removers. When appropriate, follow the Resilient Floor Covering Institute's (RFCI) Recommended Work Practice for Removal of Existing Floor Covering and Adhesive. Always wear safety glasses and use respiratory protection or other safeguards to avoid inhaling any dust. The label, installation, and maintenance instructions along with the technical data sheet, limited warranty and any appropriate Safety Data Sheet (SDS) of all products must be read, understood, and followed prior to installation. Do not leave spills unattended - wipe up promptly, and allow the floor covering to dry before trafficking. Copies of ASTM documents are available for purchase at www.astm.org.

Documentation: Record and/or photograph the site conditions, test results, and any corrective measures taken. All relevant pre-installation documentation, as well original product invoices and associated shop drawings or project information, must be stored for the entire warranty period.

Site Conditions & Acclimation: The area must be fully enclosed and weathertight. During the installation, any direct sunlight should be blocked using window treatments or other protection. Use permanent or temporary HVAC system to control the site conditions. The temperature for the installation

must match the temperature when the product will be in use (in-service temperature) and be constant ($\pm 5^{\circ}\text{F}$). In addition, ambient temperatures must be between 60°F and 80°F (16°C - 27°C) for ≥ 48 -hours before, during and after the installation. The ambient relative humidity must be between 35% and 65% and $\geq 10^{\circ}\text{F}$ above dew point (dew point calculators are available on the internet), or adhesive working and/or curing times will be severely affected. For any project that does not meet these requirements, please contact the technical department before installation.

2. SUBSTRATE PREPARATION

General Substrate Guidelines: Ensure all substrate and subfloor preparation requirements have been performed, read and/or understood by all interested parties. Do not proceed with installation until all conditions have been met. Ensure the substrate is clean, dry, flat, structurally sound and suitably prepared according to these instructions prior to installation, as manufacturer is not responsible for problems related to substrates or subfloors that have not been properly prepared. All substrates must be free of visible water or moisture, dust, residual adhesives and adhesive removers, solvents, wax, oil, grease, asphalt, visible alkaline salts or excessive efflorescence, mold, mildew and all other extraneous coating, film, material or foreign matter. Substrate and/or subfloor deflection, movement, or instability may cause issues with the flooring installation – these are not covered under warranty.

Flatness Guidelines: Check all substrates for flatness prior to installation. It is recommended that all substrates have a floor flatness of FF32 and/or have a maximum deviation of $< 1/8$ -in. gap (2 x US quarters should not slide underneath) within 6-ft. and $\leq 1/16$ -in. gap (1 x US quarter should not slide underneath) within 1-ft.. Substrates that do not meet this requirement should be corrected appropriately prior to installation. Failure to follow this recommendation must be pre-agreed upon with customer / end-user before installation begins.

Concrete Substrate Requirements: All concrete must be at least 28-days old, free of contaminants and structurally sound. If required, flatten and/or smooth the surface using a suitable, moisture-resistant, commercial-grade leveling or patching compound, following the product instructions. Do not install if water or hydrostatic pressure is visible, present or suspected. If a chemical adhesive remover has been used, contact the technical department.

All expansion joints must have a suitable expansion joint covering system installed to allow for expansion and contraction of the concrete. All dormant construction joints and surface cracks $> 1/4$ -in. must be cleared of all dust, dirt and debris and filled with a rigid crack treatment designed for use in construction joints or cracks. Follow the products instructions and ensure surface is troweled flush with surface of concrete.

Concrete Moisture Requirements: All concrete that is in direct contact with the ground (on and below-grade) must be at least 28 days old and must have a confirmed and effective vapor

retarder that is compliant with ASTM E1745 installed directly beneath the slab. Moisture and pH tests are not usually required.

Concrete Moisture Mitigation Requirements: When appropriate, use a dimensionally stable, surface-applied moisture mitigation system that, when tested in accordance with ASTM E96 / E96M Standard Test Methods for Water Vapor Transmission of Materials (Method B), has a permeability value of ≤ 0.1 grains/sq. ft./hr.. Confirm compliance with the manufacturer before use.

Gypsum/Lightweight Substrate Requirements: Gypsum or Lightweight substrates must be dry (according to the product manufacturer's requirements) and have a minimum compressive strength of 2000 PSI when installed over a wood substrate or 3000 PSI when installed over a concrete substrate. Gypsum or Lightweight substrates must be installed and prepared in accordance with ASTM F2419 or ASTM F2471, respectively. Gypsum or Lightweight substrates must be firmly bonded to a structurally sound subfloor. All cracked or fractured areas must be removed and repaired with a compatible repair product. New or existing gypsum or lightweight substrates may require a sealant or primer be installed prior to resilient flooring installation - follow the product manufacturer's recommendations regarding preparation for resilient flooring.

Wood Substrate Requirements: All wood substrates must be structurally sound, dry and within the moisture content percent (MC-%) for your region. Wood substrates and subfloors must be compliant with and, if necessary, prepared in accordance with ASTM F1482. Wood substrates must be of double layer construction with a recommended total thickness of 1-in. or more, depending on federal, state and local building codes. Sleepers and sleeper systems must not make direct contact with concrete. For standard installations, the top layer must be an APA Underlayment Grade plywood or equivalent with a minimum thickness of 1/4-in.. Plywood must be smooth, free of knots or voids and fully sanded. When floors may be subjected to moisture, use an APA-grade exterior grade plywood.

Resinous Coating Requirements: When installing directly over a resinous coating, such as an epoxy coating or a moisture mitigation system, ensure the coating is clean and free of contaminants, structurally sound, smooth, dry and has cured for the prescribed length of time.

Metal Substrate Requirements: Metal substrates must be clean, dry, structurally sound smooth and free of oil, rust and/or oxidation. When installing in areas that may be subject to topical water, moisture and/or high humidity, an anti-corrosive coating should be applied to protect the metal substrate. Contact a local paint or coating supplier for coating recommendations.

Other Substrates: Installing over existing resilient vinyl flooring is not recommended. However, it may be possible over some materials, such as VCT, VAT, quartz tile, solid vinyl tile, sheet vinyl or linoleum, as well as existing hard surface flooring substrates, such as terrazzo, porcelain or ceramic tile. Ensure substrate is

dry, existing flooring is a single layer and is clean, dry, sound, solid and well adhered. All loose material must be removed and repaired or replaced. All grout lines and wide seams, as well as any significant substrate imperfections, must be filled and troweled flush and smooth with a suitable cementitious patch. By electing to install over any existing floor covering releases the manufacturer from any responsibility regarding the suitability and continued performance of the floor covering product, including any resulting effect on the new floor covering.

Radiant Heating Requirements: When installing flooring over a substrate that contains a radiant heating system, ensure that none of the heating elements make direct contact with the flooring material. Ensure radiant heat is no higher than 70° F (21° C) 8-hours prior to and during the entire installation. After installation, the radiant heat may be gradually increased over the course of 24 hours, until normal operating temperature is reached. Ensure the temperature of the radiant heating system does not exceed 85° F (29.5° C) and avoid making abrupt changes in radiant heating temperature.

Unsuitable Substrates: These include, but are not limited to: any floating or loose floor coverings, hardwood, carpet, cushioned vinyl, rubber, cork, foam, asphalt tile, additional acoustical underlayments and any substrate with visible mold, mildew, or fungi and any substrate in wet areas, such as inside showers and saunas. Do not install over substrates that have been coated with a varnish or an oil-based, enamel, paint, primer, primer-sealer or stain-blocker. Do not install over any substrates made of Masonite, chipboard, wafer board, fiberboard, particleboard, construction-grade plywood, CDX, OSB (including AdvanTech), Luan, cement board or any non-underlayment grade panels – if present, cover with an APA-rated underlayment-grade plywood. Do not use pressure-treated plywood. If using fire-retardant plywood, confirm adhesion using the Mat Bond Evaluation detailed below. Do not install directly over any adhesive or adhesive residue of any kind. Do not install in recreation vehicles, campers or boats.

Note: Issues related to unsuitable substrates are not covered under warranty.

Adhesive Mat Bond Evaluation: If the suitability of an otherwise suitable substrate is in question, perform an adhesive bond test per ASTM F3311 Standard Practice for Evaluation of Performance and Compatibility for Resilient Flooring System Components Prior to Installation. Store all records related to this test with other relevant documentation.

3. ADHESIVE INSTALLATION

Adhesive Trowels & Coverage: Use the specified trowel notch as detailed within the flooring installation instructions. Using an unspecified trowel may affect the adhesive coverage and adhesion to the flooring or substrate. Replace trowels every 4 gallons to ensure even coverage - do not re-notch trowels. Note: Extremely porous substrates require an appropriate primer be used, following the product instructions.

Adhesive Acclimation: Check the temperature of the floor covering and adhesive using a non-contact, infrared thermometer - the temperature of both materials must be the same as the in-service temperature ($\pm 2^\circ$ F) before installation.

Application: Only apply as much adhesive as can be covered within the working-time (4-hours), typically to only one side of your starting line at a time. Apply the adhesive slowly and evenly to the substrate at a $\sim 45^\circ$ angle using the specified trowel notch. Avoid skips, puddles or sharp trowel turns.

Allow 15-30 minutes of open time for the adhesive, depending on conditions. The adhesive should be dry to the touch - do not install the flooring into wet adhesive. After each area of flooring is completed (< 1 -hour), roll it slowly, first the width then the length, using a 100 lb. three-section roller. Failure to roll correctly may result in bond failure. Repeat this process for the remainder of the installation.

Clean Up: If adhesive gets on the surface of the material, immediately remove it using a clean, damp cloth. If the adhesive has dried, use a small amount of 70% Isopropyl alcohol and a clean cloth to remove it.

4. PROTECTION & TRAFFIC RESTRICTIONS

Immediate foot traffic is permitted, but heavy traffic or heavy loads must be prevented for at least 12-hours. Do not slide or drag heavy objects across the floor. When moving appliances, heavy furniture or equipment, protect the flooring with appropriate, hard surface furniture sliders or 1/2 in. plywood.

5. WARRANTY

Novalis adhesives are covered as part of the warranty for the Novalis floor covering being installed - consult the warranty for the specific product in use for more information. No warranty is expressed, implied or provided when Novalis adhesives are used in conjunction with floor covering that is not manufactured by Novalis.

FOR PROFESSIONAL USE ONLY. PLEASE CAREFULLY REVIEW ALL ASSOCIATED TECHNICAL DATA SHEETS, SAFETY DATA SHEETS, MAINTENANCE DOCUMENTS AND WARRANTY INFORMATION PRIOR TO INSTALLATION.