

NOVA™ 110 SELF-LEVELING EPOXY

GENERIC	A modified resin system of bisphenol-A and epichlorohydrin reacted with a unique modified multiple ring cycloaliphatic amine adduct activator. The polymer structure is extremely tough with superior chemical resistance to corrosive waters and acids.
DESCRIPTION	Attractive epoxy floor coating designed to provide penetration, wetting and sealing of substrates and surfaces for improved structural strength and corrosion protection in severe chemical and physical environments. It is formulated to be hard, durable, impact and abrasion resistant. The cured film conforms to United States Department of Agriculture requirements for coatings in incidental contact with food.
USE	Heavy-duty epoxy sealer finish for containment areas and industrial floors with exposure to wet conditions, corrosive fumes and chemical contact. Provides improved protection against heavy traffic, thermal shock, and petroleum products such as kerosene, diesel, gasoline, aviation fuels, motor oils, lubrication materials, greases, and aliphatic hydrocarbon solvents. Also resists industrial waste and water solutions containing many salts, detergents, organic and inorganic acids, alkalis and other chemicals. Resistant to hot water, steam and cleaning compounds. The principal use is as a decorative, protective finish sealer for floor problem areas, such as in petrochemical, food processing, pulp and paper, and waste treatment facilities. NOVA™ 110 is self-priming.
NOTE:	For additional information regarding application of this or other CORCHEM® materials to concrete floors please refer to CORCHEM® Information Bulletin – “Applying Coatings to Concrete Substrates” available upon request.
SERVICE LIMITATIONS	Temperature resistance up to 250°F depending upon the individual exposure. Contact CORCHEM® for recommendations regarding exposure to specific corrosive chemicals.
COLORS	Gray (other colors available).
FINISH	Glossy. Finish may vary due to texture and porosity of substrate. NOTE: Subject to color change (yellowing, darkening, etc.) Chalking will occur with extended exposure to sunlight (UV). Note: Chemical and physical resistance, color and gloss retention (yellowing, darkening and/or flattening), application properties may vary according to color selected. Color and gloss variation may occur due to different induction and heat/dry time cure cycles used or if subject to moisture before curing is complete. Color and gloss retention will be affected by exposure to elevated temperatures. Some colors require a white base coat be applied prior to finish coating and/or multiple applications in order to achieve satisfactory hiding and uniformity of appearance.
PACKAGING	1-gallon & 4-gallon premeasured packaged kits.
COMPONENTS	Two. By volume 1 to 3, (Component A : Component B).
HAZMAT DATA	Hazard Class 8 – Corrosive (Component A), Hazard Class 9 – Environmentally Hazardous Substance (Component B). This material ships in any quantity via common carrier only. <i>Refer to individual Component's Safety Data Sheet for complete Hazmat and Safety information.</i>
SHELF LIFE	1-year from shipment date protected between 40°F and 100°F in its original sealed container.
VOLUME SOLIDS	100%
VOC CONTENT	0 gms/l or 0.0 lbs/gal. Conforms to 40 CFR §59.402 VOC content limits.

SURFACE PREPARATION

Surfaces must be clean, dry and free of any dirt, chalk, grease, oils, salts, hardeners, curing compounds, form release agents, and other deleterious materials before application is performed. A suitable detergent cleaner should be used. Refer to ASTM D4258-05(2012) "Standard Practice for Surface Cleaning Concrete for Coating". (NOTE: acid washing will not remove grease, oil, etc.). Previous coatings and sealers should be removed. Vacuum the topside of all horizontal and sloped surfaces.

CONCRETE AND MASONRY

Concrete and masonry must cure at least 28 days. Clean and open surfaces by abrasive "brush-off" blast or by using self contained "blast track" type shot blasting equipment until concrete laitance and efflorescence are removed, (ASTM D4259-88(2012) "Standard Practice for Abrading Concrete"). "Blow" holes and cavities should be opened in order to properly fill and seal. Level protrusions and repair cavities, voids, and cracks. When completed, the prepared surface should meet the requirements of International Concrete Repair Institute (ICRI) Guideline 310.2 CSP 3 to CSP 4. Apply the first application coat of this product and back roll to completely wet and thoroughly penetrate surface to ensure that all irregularities are filled and sealed.

IMPORTANT NOTICE!

Do not apply this product to slabs on grade unless a suitable moisture vapor barrier has been installed under the slab (relevant standard: ASTM E1745-11 "Standard Specification for Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs"). Do not apply to floors subjected to hydrostatic pressure or to floors that are structurally unsound or do not have a pH 7-8.5.

PRE-COATING INSPECTION

Perform pre-coating inspections as required by procurement documentation.

Check for desired surface cleanliness and surface profile, (relevant standards: ASTM D4258, SSPC PA 9, ICRI Guideline 310.2 CSP 3 to CSP 4), before proceeding to coating application operations.

Verify moisture level per ASTM D4263 "Test Method for Indicating Moisture in Concrete by the Plastic Sheet Method". Recommend measuring moisture vapor emission rate per ASTM F1869-16 "Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride".

Test pH level per ASTM F710-11 "Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring", (Section 5.2) result should be 7 – 8.5.

DRY COVERAGE

Theoretical (no loss): 1600 sq. ft. per gallon for one mil (.001). When computing coverage allow for application loss and surface irregularities.

DRY FILM THICKNESS

The appropriate dry film thickness will vary according to the concrete surface condition and coating purpose. A spreading rate of 60 ft² to 70 ft² per gallon (25 mils) is sufficient for self leveling characteristics. Multiple applications are recommended for thick film and slurry/broadcast systems. Actual coverage will vary due to variations in design configurations, application equipment, temperature and other factors.

POT LIFE

<1-hour @ 70°F (mixed one-gallon kit). **Pot life is significantly shorter for higher temperatures or larger quantities and longer for lower temperatures or smaller quantities.**

THINNER

Use of Thinner is NOT recommended.

If thinner must be used (for brush or roller application only), use only CORCHEM® 4 THINNER. Thin only if required for proper application. Do not exceed applicable volatile organic compound (VOC) regulations. Thinner added:

Reduction Percent	Adjusted VOCs	Fluid oz/gal	Reduction Percent	Adjusted VOCs	Fluid oz/gal
05%	41 g/l (0.34 lbs/gal)	6	10%	79 g/l (0.66 lbs/gal)	12
15%	113 g/l (0.94 lbs/gal)	17	20%	145 g/l (1.21 lbs/gal)	22

TEMPERATURES

Apply at 35°F to 125°F (Air and Surfaces) and 5°F above the dew point. *For optimal penetration of coating, temperature should be stable or falling rather than rising during initial application in order to reduce outgassing.* Sudden and/or substantial temperature change during curing process or in-service conditions can cause film defects.

MATERIAL MIXING

All equipment and containers should be cleaned or flushed with CORCHEM[®] 4 THINNER. Pre-mix each component separately prior to combining as follows: **Add 1 Part Component A by volume into 3 Parts Component B by volume.** Do not vary proportions. No induction time is required. Power-stir until completely mixed. Strain only if required for proper application. If using equipment for mixing or application, do not allow catalyzed material to remain in equipment after use! Clean immediately with CORCHEM[®] 4 THINNER.

APPLICATION METHODS

Squeegee, Roller and Slurry/Broadcast. Small areas and repairs may be applied by brush. Airless spray (hot pot) and/or conventional air spray (pressure pot) are NOT suitable for application of this material.

APPLY

In an even wet coat. Ensure seams and irregularities are completely covered. Application below minimum or above maximum suggested dry film thickness ranges might adversely affect performance.

CAUTION

This type coating may be slippery under wet conditions. It is recommended that an aggregate be incorporated into the coating to provide a nonslip surface if subject to pedestrian or vehicle traffic.

CURING TIME

This curing schedule is predicated upon no added thinner and application conditions where the mixed product, substrate, and ambient air temperatures are the same:

Temperature	50°F	70°F	90°F
Minimum Recoat Time	4 Hours	2 Hours	1 Hours
Maximum Recoat Time	48 Hours	24 Hours	18 Hours
Immersion – Final Cure	48 Hours	24 Hours	18 Hours

Curing times are significantly shorter for higher temperatures or lower thickness and are longer for lower temperatures or higher thickness. Curing times are affected by the method of application; thickness of applied film, the amount of ventilation and air circulation; relative humidity; etc. *Refer to RECOAT AND REPAIR Section if coating reaches complete cure and hardness or if subjected to extended exposure to sunlight.*

RECOAT AND REPAIR

If material has reached complete cure and hardness, or if subjected to extended exposure to sunlight, uniformly abrade the surface and feather the edges. The surface must be roughened sufficiently to provide a profile adequate to ensure a mechanical bond. For additional recoat and specific repair information and recommendations contact CORCHEM[®].

INSPECTION

Verify desired dry film thickness; refer to ASTM D6132-13 “*Standard Test Method for Nondestructive Measurement of Dry Film Thickness of Applied Organic Coatings Using an Ultrasonic Coating Thickness Gage*” or SSPC-PA 9 “*Measurement of Dry Coating Thickness on Cementitious Substrates Using Ultrasonic Gages*”.

Inspect for discontinuities, pinholes, holidays, bare areas, etc. before placing in operating service. Refer to NACE SP0188 (Section 4.2) / ASTM D4787-13 “*Standard Practice for Continuity Verification of Liquid or Sheet Linings Applied to Concrete Substrates*”. **Use test voltage of 100v per mil.**

Adhesion testing, if specified, refer to ASTM D7234-LATEST, “*Standard Test Method for Pull-Off Adhesion Strength of Coatings on Concrete Using Portable Pull-Off Adhesion Testers.*”

SQUEEGEE

Use professional application squeegee with 1/16” notch.

ROLLER

Use 1/2 inch or longer nap synthetic covers.

BRUSH

Short hair or natural bristle.

CLOTHING

Wear protective garments, shoes, goggles, and filter masks. Use protective barrier creams on exposed skin areas.

CONFINED SPACES

Wear properly fitted appropriate NIOSH/MSHA approved fresh air respirator such as MSA or equal with 1/4” I.D. or larger air supply line connected directly to proper air source during and after application unless air monitoring demonstrates vapor/mist levels are within safe limits. Use suction type exhaust fans and blowers. **CAUTION!** Air circulation and exhausting of vapors must be continued until the coatings have fully cured.

SAFETY INFORMATION

THIS PRODUCT CONTAINS EPOXY RESINS AND AMINE COMPOUNDS. DO NOT USE IF YOU HAVE HAD A REACTION TO THESE MATERIALS.

WARNING! VAPOR HARMFUL! CAUSES SEVERE EYE AND SKIN BURNS. MAY CAUSE SKIN SENSITIZATION OR OTHER ALLERGIC RESPONSES. HARMFUL OR FATAL IF SWALLOWED!

Use only with adequate ventilation. Prevent breathing of vapor or spray mists. Wear a properly fitted appropriate respirator during application and until all vapors and spray mists are gone. Prevent contact with eyes and skin. Do not take internally. Keep closures tight and upright to prevent leakage. Keep container closed when not in use. In case of spillage, absorb and dispose of in accordance with local applicable regulations. **FIRST AID:** In case of skin contact, wash thoroughly with soap and water; for eyes, flush immediately with plenty of water for 15 minutes and call a physician. Remove and wash contaminated clothing before reuse. (Discard contaminated shoes). If inhaled, remove to fresh air. If breathing difficulty persists or occurs later, consult a physician and have label and SDS information available. If swallowed, **CALL A PHYSICIAN IMMEDIATELY. DO NOT INDUCE VOMITING.**

IN CONFINED SPACES AND TANKS OBEY SPECIAL SAFETY AND EQUIPMENT INSTRUCTIONS!

FOR INDUSTRIAL USE BY PROFESSIONAL APPLICATORS ONLY. NOT INTENDED FOR SALE TO THE GENERAL PUBLIC. This product should not be sold or delivered to any person under 18 years of age. KEEP OUT OF THE REACH OF CHILDREN! IF, FOR ANY REASON, ADDITIONAL PRODUCT AND SAFETY INFORMATION, INSTRUCTIONS OR EXPLANATIONS ARE NEEDED, CONTACT CORCHEM® IMMEDIATELY!

LIMITED WARRANTY

WARRANTY & LIMITATION OF SELLER'S LIABILITY: CORCHEM® CORPORATION warrants only that its coatings represented herein meet the formulation standards of CORCHEM® CORPORATION.

THE ABOVE WARRANTY SHALL BE IN LIEU OF ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE DESCRIPTIONS ON THE FACE HEREOF.

The buyer's sole and exclusive remedy against CORCHEM® CORPORATION shall be for replacement of the product in the event that a defective condition of the product should be found to exist. NO OTHER REMEDY (INCLUDING, BUT NOT LIMITED TO, INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR LOST PROFITS, LOST SALES, INJURY TO PERSON OR PROPERTY, OR ANY OTHER INCIDENTAL OR CONSEQUENTIAL LOSS) SHALL BE AVAILABLE TO THE BUYER. The sole purpose of this exclusive remedy shall be to provide buyer with replacement of the product if any defect in materials is found to exist. This exclusive remedy shall not be deemed to have failed its essential purpose so long as CORCHEM® CORPORATION is willing and able to replace the defective materials.

Technical and application information is provided for the purpose of establishing a general profile of the coating and proper coating application procedures. Test performance results were obtained in a controlled environment and CORCHEM® CORPORATION makes no claim these tests or any other tests, accurately represent all environments. As application, environmental and design factors can vary significantly, due care should be exercised in the selection and use of the coating.

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CONTACT YOUR CORCHEM® REPRESENTATIVE FOR CURRENT TECHNICAL DATA AND INSTRUCTIONS.

NOVA™ 110 Self-Leveling Epoxy
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