



DAUERGROUT E

High performance, epoxy/polyurethane copolymer floor system.

PRODUCT NAME - DAUERGROUT E

High performance, architectural grade, epoxy/polyurethane copolymer flooring system. USDA approved, specifically designed as a chemical and abrasion resistant seamless floor topping for new concrete and to reprofile or overlay badly pitted or eroded existing concrete surfaces, providing an aesthetically appealing, high strength and chemically resistant floor system.

MANUFACTURER - NOX-CRETE, INC.

P.O. Box 3764
Omaha, Nebraska 68103-3764
Phone (402) 341-2080

PRODUCT DESCRIPTION

Two component, rapid curing, trowel applied, non-shrink epoxy/polyurethane copolymer flooring system prepackaged with a select grade of blended angular aggregates. Produces an **EXCEPTIONALLY HARD** wearing surface which resists chemical and solvent attack, thermal induced stress failures, ultraviolet sunlight induced oxidation, and damage resulting from high abrasion. Properly installed product maintains excellent substrate adhesion even when exposed to exterior freeze thaw cycles. Ideally suited for patching surface holes or spalls on loading docks or in aisle ways, reprofiling to drain badly pitted or eroded surfaces, or overlaying rough substrates providing a smooth seamless flooring system. Rejuvenates, beautifies, and protects concrete and masonry substrates from most forms of severe industrial use providing many years of maintenance free service. Due to its resilient copolymer design, DAUERGROUT E will outlast and outperform conventional epoxy and polyurethane grout flooring products. VOC compliant - meets California and other Federal and State clean air legislation. Available in transparent or pigmented versions. Can be sealed with DAUERSEAL S, DAUERSEAL FDA or STALDEC LSX top coats to provide additional or specific chemical resistance or surface performance characteristics. Where incorporation of an anti-skid surface additive is desired, appropriate aggregate can be incorporated into top coat. NOTE: Colored quartz aggregate may be employed as an embedded or top coat broadcast system by incorporating DAUERCAST DQ System as a topcoat.

BASIC USE

DAUERGROUT E combines high chemical resistance with outstanding strength and longevity into an easy to use concrete patching and floor overlayment system. Enables user to feather edge material without sacrificing adhesion. Generates adhesive and cohesive bond strengths many times greater than that of the concrete itself. This unique combination of special polymers and aggregates is designed to develop thermal movement characteristics that enhance adhesion over a variety of temperature ranges.

Ideally suited for anchoring bolts, base plates, railings, dowels, reinforcing steel, pipes, electrical fixtures, and equipment into concrete. For use where adhesive, tensile, and flexural strengths and/or chemical resistance requirements exceed capabilities of portland cement and latex modified cement grouts. Also used as a mortar grout for tile and brick in situations where the substrate is exposed to frequent contact with water or corrosive chemicals.

For use as a patching material in horizontal, vertical, and overhead applications for precast panels, tilt-up panels, beams, columns, floor slabs, ramps, and stairways. DAUERGROUT E enables quick structural repair of popouts due to corrosion of reinforcing steel from exposure to deicing salts and eliminates further chloride ion entry by substantially reducing water permeation. Ideal for repair of forklift loading and unloading docks, interstate driving lanes, bridges, pedestrian walkways, and ramps. Offers far superior performance as compared to latex or vinyl modified cement patching compounds.

When used as a topping over concrete (3/16 - 1/4 in. / 5-6 mm), DAUERGROUT E provides a smooth, non-shrinking, chemically resistant, wear resistant, non-dusting surface. For use in protecting concrete from corrosive chemicals found in manufacturing plants, dairies, animal slaughter, and packing plants. For use in power plants, and/or other buildings containing electrical equipment where dust resulting

from carbonation cannot be tolerated. A cost effective alternative where curing conditions and/or weight limitations prevent using concrete or latex modified concrete. Ideal for repair of freeze/thaw damage in parking garages and pedestrian walkways. Dramatically increases the life of concrete surfaces exposed to heavily loaded steel wheel traffic. Restores existing deteriorated concrete floors to a smooth, chemically resistant, hard wearing surface. For use in environments requiring USDA and/or FDA approval, such as food handling facilities, hospitals, supermarkets, correctional institutions, food processing and packaging operations.

ADVANTAGES

DAUERGROUT E has far superior corrosion resistance to acids and alkalis than unprotected portland cement concrete and conventional resinous flooring systems. DAUERGROUT E, fully cured and sealed, forms a dense surface that is extremely hard and virtually impermeable. This is achieved by combining several types of graded, angular shaped aggregates that when trowelled lay down like platelets to eliminate voids and maximize surface density.

The thermal properties of the aggregates and the aggregate-to-binder ratio used in concrete are very similar to those used in DAUERGROUT E. As a result, this mixture of epoxy/polyurethane copolymer and aggregate, when applied to concrete in thin sections, is much more resistant to delaminations resulting from thermal coefficient differences, compared to conventional epoxy floor overlayments.

DAUERGROUT E comes prepackaged with easy to mix pre-measured components so there is no need for special measuring equipment. Can be applied in one application except for vertical and overhead applications where several thin layers may be required.

LIMITATIONS

For industrial use only. Not to be used in areas where there is frequent exposure to oxygenated or halogenated organic solvents. Cannot be applied if substrate temperature is below 55° F (13° C). Use of DAUERGROUT E topping compound is limited to intermittent exposures of maximum temperature 200° F (93° C) or repeated contact with liquids at a maximum of 140° F (60° C). Extended exposure beyond 160° F (71° C) is not recommended and may result in product failure. Installation in confined areas or without adequate ventilation may result in excessive vapor accumulations which can be absorbed by foodstuffs.

COMPOSITION

Four component, epoxy/polyurethane copolymer resin system prepackaged with a select grade of blended angular aggregates.

PACKAGING

Container	Contents	Gross Weight
Component A	0.4 US. gal. (1.4 l)	3.3 lbs. (1.5 kg)
Component B	0.7 US. qt. (0.7 l)	1.5 lbs. (0.68 kg)
Aggregate	Dry Bag	50 lbs. (22.7 kg)
Component D	1/2 pint (238 ml)	0.35 lbs (0.16 kg)

TECHNICAL DATA

CHEMICAL RESISTANCE

DAUERGROUT E provides 24 hour spot resistance to the following chemical substances.

Water	Brake Fluid	Petroleum Oil
Aviation Fuel	Diesel Fuel	Antifreeze
Jet fuel A	Deicing Salts	Isopropanol
Ethanol	1N Lactic Acid	Propanol
Dairy Products	Butanol	Manure
Isobutanol	Vegetable Extracts	Trichlorethane
Urine	Fruit Juices	1 N Potassium Hydroxide
1N Sulfuric	Toluene	1N Sodium Hydroxide
Gasoline	Skydrol	Hydraulic Oil
Xylene		

DAUERGROUT E is not recommended for contact with concentrated mineral acids unless sealed and top coated with DAUERSEAL FDA.

PHYSICAL PROPERTIES

Conforms to ASTM C-881 Type III standard specification

Tensile Strength ASTM C-307	1,500 psi
Compressive Strength ASTM C-579	11,000 psi

DAUERGROUT E

Floor Coatings & Overlayments



chemical solutions to concrete problems

Tabor Abrasion Test ASTM D-1044 CS-17	0.1 gm max
(wheel wt.loss 1,000 gm load, 1,000 cycles)	
Shore Hardness ASTM D-2240	D85
Bond Strength	400 psi
Indentation (MIL-D-3134F)	No Indentation
Flammability (ASTM D-635)	Self Extinguish 0.25 inches max
Thermal compatibility concrete/overlay ASTM C-884	Passes test

COVERAGE RATES

DAUERGROUT E contains enough resin, hardener, and aggregate to cover approximately 22 sf (2.0 sm) at 1/4 in. (6 mm) thickness or approximately 14 sf (1.3 sm) at 3/8 in. thickness. Total kit volume when mixed is 0.45 cf (12.7 l).

CURING TIMES

DAUERGROUT E resin systems cure more rapidly as substrate temperatures increase and more slowly as substrate temperatures decrease. Under 70° F (21° C) substrate temperature conditions DAUERGROUT E is typically 85% cured in 24 hours and 100% cured in 7 days. Light foot traffic can typically be resumed in 12 hours at this temperature. Heavy traffic should be avoided for 72 hours to allow maximum abrasion resistance to develop.

INSTALLATION

REQUEST CURRENT (VERIFY) PRODUCT LITERATURE, LABELS AND MATERIAL SAFETY DATA SHEETS FROM MANUFACTURER IN WRITING AND READ SUCH THOROUGHLY BEFORE ATTEMPTING PRODUCT USE.

IMPORTANT

Site environmental and substrate conditions and construction have a major effect on product selection, application methods, procedures and rates, appearance, and performance. While product literature provides general information applicable to some conditions an adequate site test application by the purchaser or installer in advance of field scale use is mandatory (irrespective of any other verbal or written representations) to verify product and quantities purchased can be satisfactorily applied and will achieve desired appearance and performance under intended use conditions.

SURFACE PREPARATION

Concrete surfaces to be treated must be dry, a minimum of 30 days old, free from surface accumulation of dust, dirt, oil, debris, concrete cures, bondbreakers, rubber tire residue, paints, and other compounds which would prevent penetration, intimate contact between the concrete surface and the primer, or primer adhesion.

All substrate surfaces require some preparation prior to priming. New, clean concrete surfaces should be abrasive blasted or acid etched to an equivalent of a 100 grit sandpaper prior to priming and coating installation.

Old floors should be mechanically cleaned (sandblasted, scarified, or other) to remove surface contaminants. Excessively oily or greasy floors may require spot treatment or a general caustic wash prior to chemical or mechanical cleaning.

Where conditions permit, chemical or mechanically cleaned floors should be subsequently acid etched prior to priming.

VERIFY ADEQUACY OF SURFACE PREPARATION BY PRIMING AND TOPCOATING TEST AREAS AND THEN VERIFYING SATISFACTORY ADHESION.

PRIMING

All surfaces to receive DAUERGROUT E must be primed with DAUERPRIME 1100.

Verify substrate temperatures are above 50° F (10° C) before proceeding.

Prime with suitable primer (NOX-CRETE's DAUERPRIME 1100 is recommended). Mix DAUERPRIME components A & B together with mechanical mixer for 2 minutes (use watch) then apply to substrate. Product may be applied by brush, roller, or airless sprayer. If spray applicator is used, promptly follow sprayer with suitable rollers to shear material forcing it into substrate and to achieve uniform distribution. Following application of Prime 1100 immediately proceed with application of DAUERGROUT E. Do not allow primer to become tack free. Application of DAUERGROUT E should be completed within four hours of primer application.

INSTALLATION

Premix Resin (Component A), Hardener (Component B), and Surfactant (Component D) in an empty pail. Then thoroughly mechanically mix premixed resin into aggregate in wheel barrow, or mortar (paddle) mixer and continue mixing for 5 minutes.

When mixing has been completed, DAUERGROUT E can be placed, screeded, and finished to the desired thickness.

Best results are obtained when material is immediately removed from mixer and QUICKLY screeded into thin sections of approximate desired elevation, then finished. Material must be tightly compacted by hard troweling with a steel trowel with full shoulder pressure to eliminate air voids and to seal the surface completely. When applying DAUERGROUT E to vertical or overhead surfaces, apply in thin multiple coat increments to desired thickness.

Water should not come in contact with DAUERGROUT E for 48 hours following installation. Light foot traffic can be permitted approximately 12 hours at 70° F (21° C) after placement and heavy vehicular no earlier than 72 hours. To aid in finishing material, use a soap and water mixture to wet underside of trowels to prevent sticking. To clean equipment and tools, use NOX-CRETE's Solvent B or xylene.

When topping over dynamic control and expansion joints, terminate overlayment, tool and caulk grout directly over joints to eliminate random cracking in topping (static non-moving cracks can and should be filled with DYNAFLEX 402). To seal and densify grout further, use NOX-CRETE's epoxy/polyurethane copolymer sealer, DAUERSEAL-S.

SHELF LIFE

One year from date of manufacture. Use product before date indicated on container.

STORAGE

Store in clean dry place at room temperatures. Component A may partially crystallize during extended storage at cold temperatures. Consult NOX-CRETE for details regarding reliquification.

MAINTENANCE

Regular sweeping and washing of DAUERGROUT E floor surfaces is recommended. DO NOT use steam.

Worn or damaged areas should be promptly retreated with adequate preparation.

TECHNICAL SERVICES

In addition to corporate offices in Omaha, Nebraska, Kinsman's Nox-Crete Products Group maintains regional offices and distribution centers in principal markets throughout the world. Phone (800)669-2738 or (402)341-1976 for supply source and technical information.

AVAILABILITY

DAUERGROUT E is available through Kinsman's Nox-Crete Products Group and it's distributors located in principal cities world wide. Contact Kinsman's Customer Service for source information.

**Kinsman's Nox-Crete Products Group - P.O. Box 8102
Omaha, Nebraska 68108-8102**

Phone (800) "NOX-CRETE" 800-669-2738 or (402) 341-1976

FAX (800) "FAX ORDER" 800-329-6733 or (402) 341-9752

E-mail Address: kinsman@nox-crete.com

LIMITED WARRANTY

NOTICE-READ CAREFULLY

CONDITIONS OF SALE

NOX-CRETE, INC. (NOX-CRETE) offers this product for sale subject to, and Buyer and all users are deemed to have accepted, the following conditions of sale and limited warranty which may only be varied by written agreement of a duly authorized corporate officer of NOX-CRETE. No other representative of or for NOX-CRETE is authorized to grant any warranty or to waive limitation of liability set forth below.

WARRANTY LIMITATION

NOX-CRETE warrants this product to be free of manufacturing defects. If the product when purchased was defective and was within use period indicated on container or carton, when used, NOX-CRETE will replace the defective product with new product without charge to the purchaser.

NOX-CRETE makes NO OTHER WARRANTY, either express or implied, concerning this product. There is NO WARRANTY OF MERCHANTABILITY. In no case shall NOX-CRETE be liable for special, indirect or consequential damages resulting from the use or handling of the product, and no claim of any kind shall be greater in amount than the purchase price of the product in respect of which damages are claimed.

INHERENT RISKS

NOX-CRETE MAKES NO WARRANTY WITH RESPECT TO THE PERFORMANCE OF THE PRODUCT AFTER IT IS APPLIED BY THE PURCHASER, AND PURCHASER ASSUMES ALL RISKS ASSOCIATED WITH THE USE OR APPLICATION OF the product.

THIS REVISION SUPERSEDES ALL PREVIOUS VERSIONS 04/01/99