

E-Crete 57N Elastomeric Concrete

E-Crete No. 57N is supplied in kit form as a 100% solids, self-leveling, three component, modified urethane system developed for use with specially blended aggregates. E-Crete No. 57N is primarily used as a header material in the CEVA® Expansion Joint Systems. E-Crete No. 57N has the unique ability to absorb energy from impact loads and disperse this energy throughout the header material, reducing cracking and spalling. It has excellent adhesion to asphalt, concrete, and steel surfaces. For application at a minimum of 40°F (4.5°C) ambient and surface temperatures.

FEATURES	BENEFITS
3 Component Kit	Premeasured ratios allow for easy mixing in the field. No proportioning necessary.
Mix with high torque mortar mixer drill or equivalent	Reduced equipment and labor costs.
Fast cure/set time	Allows for a quick return to service, 2 hours after placement at ambient temperature.

USES

Application

- Nosing material in armorless joint systems

Locations

- Bridges/Highways
- Parking Decks
- Roadways
- Commercial Structures
- Airports (Tarmac & Gate Areas Only)

Substrate

- Concrete
- Asphalt
- Steel

ADVANTAGES

Easy Installation:

Large unit size has better pour consistency, reduced mixing & installation time. Decreased labor costs.

Rapid Cure Time:

E-Crete No. 57N allows for those under strict time constraints to resume traffic within two (2) hours of installation at 77°F.

Toughness:

E-Crete No. 57N is a modified urethane system which provides the material tremendous physical properties allowing the elastomeric concrete to deflect under load without destroying its matrix.

TECHNICAL DATA

Properties	Part A	Part B	Mixed
Color	Black	Lt Brown	Black
Density, lbs/gal	8.5 ±0.3	10.1 ± 0.2	
Typical Viscosity, cps	1000	600	
Mixing Ratio, containers	1	1	1 unit: 55 lbs aggr.
Pot Life, min @ 77°F (25°C)			15 – 20
Initial Set, min @ 77°F (25°C)			25 – 30
Initial Cure, hr @ 77°F (25°C)			2
Full Chemical Cure, days			14
Compressive Strength, psi, ASTM D695			2000 min
Resilience @ 5% deflection, ASTM D695 mod.			95% min
Tensile Strength, psi, ASTM D638			1000 min
Ultimate Elongation, ASTM D638 mod.			150% min
Shore D Hardness, ASTM D2240			50 min
Slant Shear Bond Strength, psi, ASTM C882/C882M to concrete <i>Using Eva-Pox Bonder No. 1 as primer</i>			450 min
Tear Resistance, lbf/in, ASTM D624			200 min
Yield Per Kit, cubic feet			0.55

LIMITATIONS

- Surface and ambient temperatures must be 40°F minimum for installation.
- Material is self-leveling. Contact Chase for installation procedures on sloped surfaces.
- Material should not be installed in damp or wet environment.
- Elastomeric concrete must be structurally supported by concrete, steel or other material.

SURFACE PREPARATION

New Concrete: New concrete should cure to 80% of the design strength. Concrete should be a minimum of 14 days old. Sandblasting with medium grit sand is the preferred method of surface preparation. Mechanical grinding of the surface is acceptable but should only be done when sandblasting is not an option. The surface should be prepared in a manner that will add a profile to the new concrete.

Existing Concrete: Existing concrete should be clean and free of all dust, dirt, debris, oils, greases, waxes, existing coatings, curing compounds, heavy laitance and sharp edges. Sandblasting with medium grit sand is the preferred method of surface preparation. Mechanically grinding the surface is acceptable but only when sandblasting is not possible. The surface should be prepared in a manner that will add a profile to the existing concrete.

Steel: Carbon steel surfaces must be clean and sandblasted to a near white metal (SSPC-10) finish immediately before the installation. Specialized metals such as stainless, hot dipped galvanized, bronze, etc. should have their surfaces mechanically etched. Apply heat to the steel prior to priming in order to remove any moisture from the surface. All surfaces must be clean of any dirt, dust, debris, coatings, curing agents and rust prior to installation.

PRIMING

Prior to mixing and placing the elastomeric concrete, prime all areas of the substrate(s) that will come in contact with the elastomeric concrete. Both vertical and horizontal surfaces should be primed with Eva- Pox Bonder No. 1. Eva-Pox Bonder No. 1 can be applied using a paint brush or trowel. The material should be applied in a single coat between 20 - 40 mils (40-80 ft² per gallon). The substrate should not be visible after it is primed.

MIXING

Kits contain 1 gal. of Part A and 1/2 gal. of Part B with a 5 gal. pail of Part C (E-Crete Aggregate.) Using a drill and spiral mixing paddle, premix Part A & Part B components individually until uniform (approx.15-30 seconds). Immediately pour the contents from Part A & Part B into a clean, empty 5 gallon pail and blend for an additional 30 seconds minimum or until thoroughly mixed with no marbling present. After thoroughly mixing the resins, slowly add entire 5 gal. pail of the E-Crete Aggregate (Part C) and continue mixing until no dry material appears.

Once all three components have been mixed thoroughly, the material can be poured into the block out/hole while the primer is still wet. The ECrete-57N material is self-leveling. Trowel finish as desired.

AVAILABILITY

Kit Size (0.5 cu.ft.)(14,158 cubic centimeters)

Part A - 1 gal. (3.6 L)

Part B - 1/2 gal. (1.8 L) Part C - 55

lbs. (25kg) Aggregate

CLEAN UP

Use mineral spirits to clean all tools and equipment before material sets up.

STORAGE

DO NOT ALLOW PRODUCT TO FREEZE. Store in a dry area at temperatures between 50°F and 95°F (10°C - 35°C) in the original unopened containers.

CAUTION

Direct contact with skin should be avoided. Protective clothing, goggles and gloves are required.

In case of contact with eyes, flush immediately with water and seek medical attention. FATAL IF TAKEN INTERNALLY.

E-Crete No. 57N is moisture sensitive. Prime all surfaces prior to installation. Do not install product unless initial cure (2 hours) can be achieved prior to rain fall.

E-Crete No. 57N Aggregate (Part C) contains respirable crystalline silica. Refer to current SDS for safety guidelines before using this product.

E-Crete No. 57N Aggregate (Part C) is specially formulated and must be dry prior to mixing.

Part A & B must be premixed prior to use.

Contact Chase Construction Products

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