

BURKEPOXY NS-RS

High Modulus, Fast-Setting Epoxy Gel Adhesive



Description

BurkEpoxy NS-RS is a fast set, two component, 100% solids, high modulus, epoxy gel adhesive that is moisture tolerant and meets the requirements of ASTM C-881. BurkEpoxy NS-RS is available in dispensing cartridges or larger gallon units.

Use

BurkEpoxy NS-RS primary use is for anchoring bolts, dowels, and reinforcing steel in concrete where a fast set, high strength adhesive is required. BurkEpoxy NS-RS may also be used for vertical and overhead structural bonding and patching, sealing of cracks and the setting of injection ports.

Benefits

- High-strength structural adhesion
- Idea for anchoring of dowels, bolts and reinforcing steel
- Easy dispensing, no mixing with prefilled cartridges
- Moisture tolerant
- Very Fast setting
- Gel consistency
- Excellent adhesion

Applicable Standards

ASTM C-881, Type I, II, IV & V Grade 3, Classes B&C.

Architectural Specifications

Epoxy Bonding Agent: Material shall be a 100% solids, high-modulus, non-sag gel, moisture insensitive epoxy-resin compliant with ASTM C-881, Type I, II, IV & V Grade 3, Classes B&C. Approved Product: Edoco BurkeEpoxy NSRS or approved equivalent.

Application

Surface Preparation: Before the application of BurkEpoxy NS-RS the surface to be bonded must be clean and sound. Remove all dirt, laitance, grease, curing compounds and other

foreign matter by sandblasting, mechanical abrasion or hydro blasting. For drilled holes, clean with a bristle brush. Remove all water and dust with clean, oil free compressed air prior to application.

Mixing Instructions: Air and surface temperatures must be 40°F(4°C) or above. Mix equal volumes of Part A and Part B for three minutes with a low speed drill equipped with a jiffy mixer or paddle. Mix only what can be used during the pot life. For easy dispensing and no mixing, use BurkEpoxy NS-RS pre-filled cartridges and dispensing guns.

For use as an adhesive, apply the BurkEpoxy NS-RS material neat and work into substrate. The glue line should not exceed 1/8" (3 mm). For the anchoring of bolts, dowels, reinforcing steel, etc. the depth of the hole

should be approximately 9 -15 times the bolt diameter. For optimum pullout, the hole space (annulus) around the bolt in the hole should not exceed 1/8" (0.3cm). The annulus should not exceed 1/4" without aggregate extension.

For dispensing epoxy with the cartridges, first cut the static nozzle mixer tip to the preferred opening for the job. Next, remove plugs from cartridge, attach the static mixer with the nut, and then finger tighten. Load a cartridge into the dispensing gun and dispense a bead of epoxy until the color is uniformly gray with no streaks. Now the cartridge is ready to use. Dispense the epoxy into the anchoring hole filling from the bottom up.

Insert the bolt, dowel or anchor turning it slowly during insertion. After insertion, the hole should be completely full of epoxy.

APPLICATION PROPERTIES*	
Mix Ratio	1:1 by volume
Gel Time (ASTM C-881)	10 Minutes
Color	gray
Consistency	Gel
Cured Properties	
Compressive Strength (ASTM D-695)	14,770 psi min. (101.83 MPa)
Bond Strength (ASTM C-882)	
2 days	1,930 psi (13.30 MPa)
14 days	2,735 psi (18.85 MPa)
Compressive Modulus (ASTM D-695)	991,627 psi (6,837.26 MPa)
Tensile Strength (ASTM D-638)	8,272 psi (57.03 MPa)
Elongation at Break (ASTM D-638)	1.07%
Water Absorption (ASTM D-570)	0.16%
Heat Deflection Temp (ASTM D-648)	154.2°F (67.88°C)

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To produce a mortar for interior patching repairs, mix 1 to 1 1/2 parts by volume of clean, dry, well-graded silica sand to one part by volume of mixed epoxy. Place the mortar, working it into the concrete substrate. Each mortar lift should not exceed 1" (2.5 cm).

Packaging

Unit Sizes:

- 1 quart (.95L) units
- 1 gal. (3.8 L) units
- 2 gal. (7.6 L) units
- 10 gal (37.8L) units
- 22 Oz. Dual Cartridge (.65 L)

Storage

BurkEpoxy NS-RS should be stored in a dry environment between 40-90°F (5- 32°C). Under these conditions, the shelf life is twelve (12) months in unopened, damage-free containers.

Clean-Up

Use 1018 Eposolvent or xylene to clean tools and equipment before the BurkEpoxy NS-RS has set hard.

Limitations/Precautions

Always test a small amount of BurkEpoxy NS-RS to verify that the product has been thoroughly mixed and will harden properly before proceeding. Do not thin with any solvent. Surface and air temperatures must be a minimum of 40°F (4°C) for mixing and application. For applications greater than 150°F (66°C) contact Edoco Technical Services.

Prolonged or repeated skin or eye contact may cause irritation. If contact occurs, wash immediately and seek medical help. Use safety glasses and wear protective rubber gloves. In case of ingestion, call a physician. Refer to Material Safety Data Sheets (MSDS) for additional information.

Contact with skin may cause severe chemical burns. Wash immediately with soap and water. Avoid eye contact. If eye contact occurs, flush immediately with water. Product is a strong sensitizer. Avoid breathing vapors. Use safety glasses and wear protective rubber gloves. In case of ingestion, call a physician. Refer to Material Safety Data Sheets (MSDS) for additional information.

Warranty

Edoco warrants, for 12 months from the date of manufacture or for the duration of the published product shelf life, whichever is less, that at the time of shipment by Edoco, the product is free of manufacturing defects and conforms to Edoco's published specifications in force on the date of acceptance by Edoco of the order. Edoco shall only be liable under this warranty if the material has been applied, used, and stored in accordance with Edoco's instructions in this technical data sheet. The purchaser must examine the product when received and promptly notify Edoco in writing of any non-conformity before the product is used, or no later than 30 days after such non-conformity is first discovered. If Edoco, in its sole discretion, determines that the product breached the above warranty, it will, in its sole discretion, replace the non-conforming product, refund the purchase price or issue a credit in the amount of the purchase price. This is the sole and exclusive remedy for breach of this warranty. Only an Edoco officer is authorized to modify this warranty. The sales information on the Edoco website and received by the customer during the sales process does not supersede this warranty and the specifications of the product in force on the date of sale. THE FOREGOING WARRANTY SHALL BE EXCLUSIVE AND IN LIEU OF ANY OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND ALL OTHER WARRANTIES OTHERWISE ARISING BY OPERATION OF LAW, COURSE OF DEALING, CUSTOM, TRADE OR OTHERWISE.

Limitation of Liability

Edoco shall not be liable in contract or in tort (including, without limitation, negligence, strict liability or otherwise) for loss of sales, revenues or profits; cost of capital or funds; business interruption or cost of downtime, loss of use, damage to or loss of use of other property (real or personal); failure to realize expected savings; frustration of economic or business expectations; claims by third parties (other than for bodily injury), or economic losses of any kind; or for any special, incidental, indirect, consequential, punitive or exemplary damages arising in any way out of the performance of, or failure to perform, this Agreement, even if Edoco could foresee or has been advised of the possibility of such damages. The Parties expressly agree that these limitations on damages are allocations of risk constituting, in part, the consideration for this agreement, and also that such limitations shall survive the determination of any court of competent jurisdiction that any remedy provided in these terms or available at law fails of its essential purpose.

Estimating Guide

Bolt Diameter Rebar Size	Hole Diameter	Hole Depth	Anchors per 22 fl. oz. Cartridge (.65 liter)	
			Threaded Rod	Rebar/Dowel
3/8"- #3 (1 cm)	1/2" (1.3 cm)	4" (10.2 cm)	101	115
1/2"- #4 (1.3 cm)	5/8" (1.6 cm)	5" (12.7 cm)	51	70
5/8"- #5 (1.6 cm)	3/4" (1.9 cm)	6" (15.2 cm)	26	33
3/4"- #6 (1.9 cm)	7/8" (2.2 cm)	7" (17.8 cm)	17	23
7/8"- #7 (2.2 cm)	1" (2.5 cm)	8" (20.3 cm)	12	17
1"- #8 (2.5 cm)	1-1/8" (2.8 cm)	9" (22.9 cm)	9.3	13
1-1/4"-#10 (3.2 cm)	1-1/2" (3.8 cm)	9" (22.9 cm)	5.9	5.9