

# Concrete Admixtures and Fiber

# **IMIPOXY GEL-200**

High Modulus, Epoxy Gel Adhesive

### **DESCRIPTION**

IMIPOXY GEL-200 is a two component,100% solids, high modulus, epoxy gel adhesive that is moisture tolerant and meets the requirements of ASTM C-881. IMIPOXY GEL-200 is available in dispensing cartridges or larger gallon units.

# **USE**

IMIPOXY GEL-200 primary use is for anchoring bolts, dowels and reinforcing steel in concrete. IMIPOXY GEL-200 may also be used for vertical and overhead structural bonding, patching and sealing of cracks and the setting of injection ports.

### **ADVANTAGES**

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

#### TECHNICAL INFORMATION

Applicable Standards: ASTM C-881, Type I,II,IV and V, Grade 3, Classes B & C

**Application:** Surface Preparation: Before the application of IMIPOXY GEL-200 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, 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 IMIPOXY GEL-200 prefilled cartridges and dispensing guns. Contact IMI for details. For use as an adhesive, apply the IMIPOXY GEL-200 material neat and work into substrate. The glue line should not exceed 1/8"(3.0mm). 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 pull-out, 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. 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 vloume of mixed epoxy. Place the mortar, working it into the concrete substrate. Each mortar lift should not exceed 1"(2.5cm).

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Mix Ratio1:1 by volumeGel Time (ASTM C-881)38 minutesColorGrayConsistencyGel

#### **CURED PROPERTIES:**

Compressive Yield Strength (ASTM D-695) 11,002 psi min.(75.88 MPa)

Bond Strength (ASTM C-882)

2 days 3,930 psi (27.1 MPa) 14 days 5,250 psi (36.20 MPa)

Compressive Modulus (ASTM D-695) 482,900 psi 3,330.34 MPa)

Tensile Strength (ASTM D-638) 7,544 psi (52.02 MPa)

Elongation at Break (ASTM D-638) 1.1%

Water Absorption (ASTM D-570) 0.14%

### **PACKAGING**

Unit Sizes:

1 Quart (.95 L) units

1 Gallon (3.8 L) units

2 Gallon (7.6 L) units

10 Gallon (37.8 L) units

22 Oz. Dual Cartridge (.65 L)

## LIMITATIONS

Always test a small amount of IMIPOXY GEL-200 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).

## **STORAGE**

IMIPOXY GEL-200 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.

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

