



# DURALFLEX GEL

## NON-SAG, LOW MODULUS EPOXY ADHESIVE

### PACKAGING

4 gal (15 L) unit [two 2 gal (7.5 L) kits]  
Code: TD5345104520 (Concrete Gray)

### CLEAN UP

Clean tools and application equipment immediately with acetone, xylene, or MEK. Clean spills or drips with the same solvents while still wet. Hardened DURALFLEX GEL will require mechanical abrasion for removal.

### SHELF LIFE

2 years in original, unopened package

### SPECIFICATIONS AND COMPLIANCES

- Complies with ASTM C881 Type III, Grade 3, Class B and C

### DESCRIPTION

DURALFLEX GEL is a two-component, 100% solids, moisture insensitive, high strength epoxy adhesive and binder for numerous applications. This low modulus, non-sag epoxy resin is the perfect solution for general bonding applications.

### PRODUCT CHARACTERISTICS

#### FEATURES/BENEFITS

- Exceptional adhesion to construction materials
- Easy to use 1:1 mix ratio
- Moisture insensitive
- Tenacious bond strength

#### PRIMARY APPLICATIONS

- Bonding of concrete, masonry or wood
- Pick-proof sealant for jails/prisons and kennels
- Mix with dried silica sand to create a repair mortar

#### APPEARANCE

Part A liquid is gray in color and Part B liquid is tan in color.

#### COVERAGE

1 neat gal (3.8 L) yields 231 in<sup>3</sup> (3,785 cm<sup>3</sup>) of epoxy. 1 gal (3.8 L) of neat DURALFLEX GEL epoxy mixed with 1 gal (3.8 L) of dry 20/40 mesh silica sand will yield approximately 368 in<sup>3</sup> (6,030 cm<sup>3</sup>) of mortar.

**Note:** Coverage rates are approximate. Actual coverage depends on temperature, texture, and substrate porosity.

### TECHNICAL INFORMATION

The following are typical values obtained under laboratory conditions. Expect reasonable variation under field conditions.

Test Method	Test Property	Result
ASTM C881	Consistency	< 1/4" (6.4 mm)
ASTM C881	Gel Time	31 minutes
ASTM C882	Bond Strength	2 days: > 2,000 psi (13.8 MPa) 14 days: > 3,500 psi (24.1 MPa)
ASTM D570	Water Absorption	24 hours: < 0.6%
ASTM D695	Compressive Yield	7 days: > 2,900 psi (20 MPa)
ASTM D695	Compressive Modulus	7 days: 120,500 psi (830.8 MPa)
ASTM D638	Tensile Strength	7 days: > 2,000 psi (13.8 MPa)
ASTM D638	Elongation at Break	20%

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## DIRECTIONS FOR USE

**Surface Preparation:** The surface must be structurally sound, dry, clean and free of grease, oil, curing compounds, soil, dust and other contaminants. Surface laitance must be removed. Concrete surfaces must be roughened and made absorptive, preferably by mechanical means, and then thoroughly cleaned of all dust and debris. If the surface was prepared by chemical means (acid etching), a water/baking soda or water/ammonia mixture, followed by a clean water rinse, must be used for cleaning, in order to neutralize the substrate. Allow substrate to dry before application. Route cracks and blow dust/debris from them with oil-free compressed air. Following surface preparation, the strength of the surface can be tested if quantitative results are required by project specifications. An elcometer or similar tensile pull tester may be used in accordance with ASTM D4541, and the tensile pull-off strength should be at least 250 psi (1.7 MPa).

When coating steel, all contamination should be removed and the steel surface prepared to a "near white" finish (SSPC SP10) using clean, dry blasting media.

**Mixing:** Mix DURALFLEX GEL using a low-speed drill and a mixing paddle. Pre-mix Part A and Part B separately for approximately 1 minute each. Combine Part A and Part B in a 1:1 ratio by volume, then mix thoroughly for 3 to 5 minutes. To make DURALFLEX GEL mortar, gradually add clean, dry, 20/40 mesh silica sand to previously mixed DURALFLEX GEL epoxy and mix thoroughly for 3 to 5 minutes. The mix ratio of aggregate to mixed epoxy is approximately 1:1 by volume, but can be modified depending on the desired consistency of the mortar.

Scrape the bottom and sides of the containers at least once during mixing. Do not scrape bottom or sides of the container once mixing operations have ceased; doing so may result in unmixed resin or hardener being applied to the substrate. Unmixed resin or hardener will not cure properly. Do not aerate the material during mixing. To keep aeration to a minimum, the recommended mixing paddles are #P1 or #P2 as found in ICRI Guideline 320.5R-2014.

**Application: General bonding:** Apply by spatula, brush, or trowel. Ensure the surfaces to be joined have uniform coatings of DURALFLEX GEL. For optimum results, the bond line should not exceed 1/8" (3.2 mm). Join surfaces and hold or clamp firmly until the epoxy gels. Ideally, a small amount of adhesive should exude from the joint. Surfaces must be mated while the adhesive is still tacky. **Patching and repairs:** Apply DURALFLEX GEL neat as a primer coat to the prepared concrete surface. Mix the DURALFLEX GEL into an epoxy mortar and apply to the area by trowel or spatula in lifts of 1" to 1-1/2" (25 to 38 mm) before the neat primer coat becomes tack free. Allow each lift to reach initial set before applying subsequent lifts.

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## PRECAUTIONS/LIMITATIONS

- Store DURALFLEX GEL indoors, protected from moisture, at temperatures between 50 °F and 90 °F (10 °C and 32 °C)
- Surface and ambient temperature during applications should be between 50 °F and 90 °F (10 °C and 32 °C)
- Material temperatures should be at least 50 °F (10 °C) and rising
- Working time and cure time will decrease as the temperature increases, and will increase as the temperature decreases
- Do not thin DURALFLEX GEL
- DURALFLEX GEL will discolor upon prolonged exposure to ultraviolet light and high-intensity artificial lighting.
- DURALFLEX GEL is not to be used as a finished/aesthetic coating
- Do not use DURALFLEX GEL for anchoring
- Maximum application thickness of DURALFLEX GEL mortar is 1.5" (38 mm) per lift.
- In all cases, consult the product Safety Data Sheet before use

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