

# TECHNICAL DATA

## QUESTMARK 5821

### LOW MODULUS FAST SET GEL

#### PRODUCT DESCRIPTION:

5821 is a two component 100% solids epoxy gel designed for shallow repair on either vertical or horizontal surfaces. This product is easy to mix and use and has the consistency of vasoline petroleum jelly. Additionally, the product, because it is a 100% solids product, can be applied thicker on horizontal surfaces when required.

#### RECOMMENDED FOR:

Recommended for repairing cracks and defects in concrete or masonry. The fast set time makes this product an ideal quick repair gel.

#### SOLIDS BY WEIGHT:

100%

#### SOLIDS BY VOLUME:

100%

#### VOLATILE ORGANIC CONTENT:

Zero pounds per gallon

#### COLORS AVAILABLE:

Amber clear- semi-transparent

#### RECOMMENDED FILM THICKNESS:

1/8" cracks or thin build repairs

#### COVERAGE PER GALLON:

0.13 cubic feet or 1,228 lineal feet @ 1/8"x 1/8"

#### PACKAGING INFORMATION

2 gallon kit (17.0 pounds net approximately)

10 gallon kits (85.0 pounds net approximately)

#### MIX RATIO:

1 gallon part A (9.0 pounds) to 1 gallon part B (8.0 pounds) (volumes and weights approximate)

#### SHELF LIFE:

1 year in unopened container

#### ABRASION RESISTANCE:

Taber abraser CS-17 calibrase wheel with 1000 gram total load and 500 cycles = 52 mg loss

#### HEAT DEFLECTION TEMP.:

47 degrees C (116.5 degrees F)

#### FLEXURAL STRENGTH:

8,590 psi @ ASTM D790

#### COMPRESSIVE STRENGTH:

6,110 psi @ ASTM D695- 1/2" x 1/2" bars

#### TENSILE STRENGTH:

4,980 psi @ ASTM D638

#### ULTIMATE ELONGATION:

14.1%

#### GARDNER VARIABLE IMPACTOR:

50 inch pounds direct - passed

#### ADHESION:

360 psi @ elcometer (concrete failure, no delamination)

#### HARDNESS:

Shore D= 35

#### VISCOSITY:

Mixed= 3,000,000 cps (typical)

#### DOT CLASSIFICATION:

Part A "not regulated"

Part B "CORROSIVE LIQUID N.O.S., 8, UN1760, PGIII

#### CURE SCHEDULE: ( 70° F )

pot life - 2 gallon volume ..... 7-10 minutes

tack free (dry to touch)..... 1-3 hours

recoat or topcoat..... 10-12 hours

light foot traffic..... 11-13 hours

full cure (heavy traffic)..... 2-7 days

#### APPLICATION TEMPERATURE:

50-90 degrees F. with relative humidity below 85% for best results.

#### CHEMICAL RESISTANCE:

REAGENT	RATING
butanol	C
xylene	B
1,1,1 trichloroethane	B
MEK	A
methanol	A
ethyl alcohol	A
skydrol	B
10% sodium hydroxide	E
50% sodium hydroxide	D
10% sulfuric acid	C
70% sulfuric acid	A
10% HCl (aq)	C
5% acetic acid	A

Rating key: A - not recommended, B - 2 hour term splash spill, C - 8 hour term splash spill, D - 72 hour immersion, E - long term immersion. NOTE: extensive chemical resistance information is available through your sales representative.

#### PRIMER:

None necessary

#### TOPCOAT:

Optional: This product can be overcoated with many suitable epoxy and urethane products.

#### LIMITATIONS:

\*Color stability may be affected by environmental conditions such as high humidity, temperatures, chemical exposure or exposure to certain types of lighting such as sodium vapor lights.

\*Colors or clarity may vary from batch to batch.

\*This product is not UV color stable and may discolor when exposed to UV light sources.

\*Substrate temperature must be 5°F above dew point.

\*This product has a very short pot life. Therefore, mix only an amount that can be used in a short period of time.

\*Do not topcoat over this product until it has sufficiently hardened.

\*All new concrete must be cured for at least 30 days prior to application.

\*See reverse side for application instructions.

\*Physical properties are typical values and not specifications.

\*See reverse side for limitations or our liability and warranty.

## MIXING AND APPLICATION INSTRUCTIONS

- 1) **PRODUCT STORAGE:** Store product at normal room temperature before using. Continuous storage should be between 60 and 90°F. Low temperatures or temperature fluctuations may cause crystallization.
- 2) **SURFACE PREPARATION:** All dirt, foreign contaminants, oil, and laitance must be removed to assure a trouble free bond to the substrate. A test should be made to determine that the concrete is dry; this can be done by placing a 4'x4' plastic sheet then taping down the edges. If after 24 hours, the substrate is still dry below the plastic sheet, then the substrate is dry enough to start repair work. This product is intended for hairline cracks and other fractures up to 1/8 inch in width. Remove all unsound concrete from within the crack to be repaired and thoroughly vacuum all debris and dust from within the crack opening.
- 3) **PRODUCT MIXING:** This product has a mix ratio of 1 part A to 1 part B by volume. To mix, simply measure out equal volumes of the material and mix them together thoroughly with slow speed mixing equipment such as a jiffy mixer until the material is thoroughly mixed and streak free. Mix only an amount of material that can be used in a short period of time. A two gallon volume of material will have a usable pot life of about 7-10 minutes. Smaller volumes will be easier to work with as well as adding more time to the usable pot life. Improper or insufficient mixing may result in product failure.
- 4) **PRIMING:** No priming is necessary.
- 5) **PRODUCT APPLICATION:** The mixed material can be applied by marginal trowel, putty knife, or any other suitable equipment.
- 6) **RECOAT OR TOPCOATING:** When placing a topcoat over a repaired crack, allow the material to cure before installing the coating. If excessive amounts are spread well beyond the crack repair or in areas where surface repairs have been implemented, it is best to check the cured areas for any possible amine blush (a whitish, greasy film or deglossing) prior to coating over this material. If a blush is present, it must be removed prior to topcoating or recoating. A standard type detergent cleaner can be used to remove any blush. Many epoxy coatings and urethanes are compatible for use over this product as well as multiple coats of this product.
- 7) **CLEANUP:** Use xylol.
- 8) **FLOOR CLEANING:** Caution! Some cleaners may affect the color of the fast gel installed. Test each cleaner in a small area, utilizing your cleaning technique. If no ill effects are noted, you can continue to clean with the product and process tested.
- 9) **RESTRICTIONS:** Restrict the use of the floor to light traffic and non-harsh chemicals until the coating is fully cured (see technical data under full cure). It is best to let the floor remain dry for the full cure cycle.

## NOTICE TO BUYER: DISCLAIMER OF WARRANTIES AND LIMITATIONS ON OUR LIABILITY

*We warrant that our products are manufactured to strict quality assurance specifications and that the information supplied by us is accurate to the best of our knowledge. Such information supplied about our products is not a representation or a warranty. It is supplied on the condition that you shall make your own tests to determine the suitability of our product for your particular purpose. Listed physical properties are typical and should not be construed as specifications. **NO WARRANTY IS MADE, EXPRESSED OR IMPLIED, REGARDING SUCH OTHER INFORMATION, THE DATA ON WHICH IT IS BASED, OR THE RESULTS YOU WILL OBTAIN FROM ITS USE. NO WARRANTY IS MADE, EXPRESSED OR IMPLIED, THAT OUR PRODUCT SHALL BE MERCHANTABLE OR THAT OUR PRODUCT SHALL BE FIT FOR ANY PARTICULAR PURPOSE. NO WARRANTY IS MADE THAT THE USE OF SUCH INFORMATION OR OUR PRODUCT WILL NOT INFRINGE UPON ANY PATENT.** We shall have no liability for incidental or consequential damages, direct or indirect. Our liability is limited to the net selling price of our product or the replacement of our product, at our option. Acceptance of delivery of our product means that you have accepted the terms of this warranty whether or not purchase orders or other documents state terms that vary from this warranty. No representative is authorized to make any representation or warranty or assume any other liability on our behalf with any sale of our products. Our products contain chemicals that may **CAUSE SERIOUS PHYSICAL INJURY. BEFORE USING, READ THE MATERIAL SAFETY DATA SHEET AND FOLLOW ALL PRECAUTIONS TO PREVENT BODILY HARM.***

**REVISED MARCH 2004**