BIGA GROUP
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ENGINEERING, CONSULTING AND SURVEY
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Technical Data Sheet
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DFense Blok™ Fast Cure (FC)

Description:
Alumina ceramic bead-filled epoxy system with outstanding wear and abrasion resistance for severe service conditions. Fast cure allows for repaired processing equipment to be returned to service in as little as 2 hours.

Intended Use:
Repair scrubbers, ash handling systems, pipe elbows, screens, chutes, chippers, bins, hoppers, bunkers, separators and digester tables. Protect exhausters, launderers, housing fans, crushers, breakers, and conveyor screws.

Product features:
Fast cure for minimal downtime
Superior wear and abrasion resistance
Able to withstand impact
Resistant to a wide range of chemicals
Non-sagging

Limitations:
None

Typical Physical Properties:

Technical data should be considered representative or typical only and should not be used for specification purposes.

Cured 7 days @ 75°F	
Adhesive Tensile Shear	2,764 psi
Coefficient of Thermal Expansion	33 [in/(in x °F)] x 10(-6)
Color	Gray
Compresive Strength	7,178 psi
Cured Hardness	80 D
Cured Shrinkage	0.0008 in/in
Dielectric Constant	45
Flexural Strength	7,488 psi
Recoat Time	1 to 1.5 hours
Specific Gravity	2.00
Specific Volume	13.8 in(3)/lb
Temperature Resistance	Dry 300 °F; Wet 140 °F

Uncured	
% Solids by Volume	100
Coverage / lb	53 sq. in/lb @ 1/4"
Cure Time	10 hours
Functional Cure	2-3 hours
Mix Ratio by Volume	2:1
Mix Ratio by Weight	2:1
Mixed Viscosity	Non-Sag Putty
Pot Life @ 75 °F	15 minutes

TESTS CONDUCTED

Adhesive Tensile Shear ASTM D 1002
Compressive Strength ASTM D 695
Cured Hardness Shore D ASTM D 2240
Cure Shrinkage ASTM D 2566
Dielectric Constant ASTM D 150
Flexural Strength ASTM D 790
Coef. of Thermal Expansion ASTM D 696

Surface Preparation:

1. Thoroughly clean the surface with Devcon® Cleaner Blend 300 to remove all oil, grease and dirt.

2. Grit blast surface area with 8-40 mesh grit, or grind with a coarse wheel or abrasive disc pad, to create increased surface area for better adhesion (Caution: An abrasive disc pad can only be used provided white metal is revealed). Desired profile is 3-5mil, including defined edges (do not "feather-edgeòepoxy).

Note: For metals exposed to sea water or other salt solution, grit-blast and high-pressure-water-blast the area, then leave overnight to allow any salts in the metal to ñsweatòto the surface. Repeat blasting to ñsweat outòall soluble salts. Perform chloride contamination test to determine soluble salt content (should be no more than 40ppm).

3. Clean surface again with Devcon® Cleaner Blend 300 to remove all traces of oil, grease, dust or other foreign substances from the grit blasting.

4. Repair surface as soon as possible to eliminate any changes or surface contaminants.

WORKING CONDITIONS: Ideal application temperature is 55°F to 90°F. In cold working conditions, directly heat repair area to100-110°F prior to applying epoxy and maintain at this temperature during product cure to dry off any moisture,

contamination or solvents, as well as to achieve maximum performance properties.

Mixing Instructions:

---- It is strongly recommended that full units be mixed, as ratios are pre-measured. ----

1. Add hardener to resin.
2. Mix thoroughly with screwdriver or similar tool (continuously scrape material away from sides and bottom of container) until a uniform, streak-free consistency is obtained.

INTERMEDIATE SIZES (1,2,3 lb. units): Place resin and hardener on a flat, disposable surface such as cardboard, plywood or plastic sheet. Use a trowel or wide-blade tool to mix the material as in Step 2 above.

LARGE SIZES: (25 lb., 30 lb., 50 lb. buckets): Use a T-shaped mixing paddle or a propeller-type Jiffy Mixer Model ES on an electric drill. Thoroughly fold putty by vigorously moving paddle/propeller up and down until a homogenous mix of resin and hardener is attained.

Application Instructions:

Spread mixed material on repair area at a minimum thickness of 1/4". Work firmly into substrate to ensure maximum surface contact. Dfense BlokÊ Fast Cure (FC) fully cures in 10 hours. Application Tip: For easier "workability," a light coating of Devcon® Cleaner Blend 300 or 99% Isopropyl Alcohol (IPA) on the surface of the tool used to transfer/spread Dfense BlokÊ Fast Cure (FC) is recommended.

FOR BRIDGING LARGE GAPS OR HOLES

Place fiberglass sheet, expanded metal or mechanical fasteners between repair area and Dfense BlokÊ Fast Cure (FC) prior to application.

FOR VERTICAL SURFACE APPLICATIONS

Dfense BlokÊ Fast Cure (FC) can be troweled up to 3/4" without sagging. If greater vertical thickness is desired, apply first layer at 3/4", wait until product is firm and heat of reaction dissipates, apply a second layer of 3/4". Repeat as needed.

FOR OVERHEAD APPLICATIONS

Dfense BlokÊ Fast Cure (FC) can be applied up to 1/2" to overhead surfaces. If greater thickness is desired apply first layer at 1/2", wait until product has firmed and heat of reaction dissipates, apply a second layer at 1/2". Repeat as necessary.

FOR ± 70°F APPLICATIONS

Applying epoxy at temperatures below 70°F lengthens functional cure and pot life times. Conversely, applying above 70°F shortens functional cure and pot life.

Storage:

Store at room temperature, 70 °F.

Compliances:

None

Chemical Resistance:

Chemical resistance is calculated with a 7 day, room temp. cure (30 days immersion) @ 75°F)

1,1,1-Trichloroethane	Very good
Ammonia	Excellent
Gasoline (Unleaded)	Fair
Hydrochloric 10%	Very good
Methanol	Poor
Methyl Ethyl Ketone	Poor
Sodium Hydroxide 50%	Excellent
Sulfuric 10%	Very good

Trisodium Phosphate	Very good

Precautions:

Please refer to the appropriate material safety data sheet (MSDS) prior to using this product.

For technical assistance, please call 1-800-933-8266

FOR INDUSTRIAL USE ONLY

Warranty:

Devcon will replace any material found to be defective. Because the storage, handling and application of this material is beyond our control, we can accept no liability for the results obtained.

Disclaimer:

All information on this data sheet is based on laboratory testing and is not intended for design purposes. ITW Devcon makes no representations or warranties of any kind concerning this data.
For product information visit www.bigagroup.com / www.devcon.com alternatively for technical assistance please call +385 52 880 882 or send an e-mail to biga@biga.hr.

Order Information:

11350 9 lb.