



Product Data Sheet
QuakeWrap® VB5G Glass Veil
for Structural Application

DESCRIPTION

QuakeWrap® VB5G is a high-strength biaxial plain weave glass fabric. The fabric is white and is constructed with very a fine yarn that creates a tightly woven fabric. The flexibility of the fabric allows it to bend around sharp corners without causing damage to the fibers. The tight weave of the fabric is ideal for creating a resin rich barrier on applications where presence of pinholes in the FRP could be unacceptable.

QuakeWrap® VB5G can be saturated with any QuakeBond™ resin such as J300SR Saturating Resin, J333SR, J401HCR High Chemical Resistant and bonded to the surface of a steel pipe, beam or column to create a dielectric barrier between the steel and carbon FRP. The fabric has an aerial weight of 5.9 oz/yd² (200 g/m²).

Although the fabric provides a breaking force of 200 pounds/inch (35 N/mm), the strength of the fabric can be conservatively ignored in design applications.

USE

- Dielectric barrier between steel and carbon FRP
- Creating an impervious (vapor barrier) layer between various layers of FRP
- Creating an impervious (vapor barrier) top layer in repair of pipes

ADVANTAGES

- Stable construction assures maintaining the geometry
- Tight weave (18 ends per inch) allows bending of the fabric around corners without damage to the fibers.
- Fully compatible and excellent adhesion to QuakeBond™ resins.
- Non-corrosive.
- Versatile; can be wrapped around complex shapes and tight corners.
- Light weight does not alter mass & dynamic loads on structure.
- Special manufacturing of the fabric makes it very stable & prevents fraying.

PACKAGING

QuakeWrap® VB5G is supplied in 50-inch (1270 mm) wide rolls. The fabric can be easily cut in the field to various lengths.

SHELF LIFE

Unlimited shelf life in proper storage conditions.

STORAGE CONDITIONS

Store in dry place at 45°-95° F (7°-35° C).

APPLICATION

Surface must be clean and sound; it may be dry or damp but must be free of standing water and frost. Remove dust, laitance, grease, curing compounds, disintegrated materials and other bond inhibiting materials from the surface. Existing uneven surfaces must be filled with an appropriate repair mortar. The adhesive strength of the substrate must be verified after surface preparation by random pull-off testing (ACI 503R) at the discretion of the engineer. Minimum tensile strength of 200 psi (1.4 MPa) with substrate failure is required.

Blast clean, shot-blast, scarify or use other approved mechanical means to clean the substrate surface. Any sharp edges (i.e. fins, form-marks, etc.) must be ground smooth and flush. QuakeWrap® VB5G can be applied using either dry layup or wet layup methods.

Apply QuakeBond™ J201TC onto the substrate with a trowel or spatula to a nominal thickness of 40 mil (1 mm). A notched trowel may be used for this application.

In dry layup, a coat of resin is applied to the structure, the dry fabric is applied on top of the resin and an additional layer of resin is applied on top of the VB5G. Rollers can be used to make sure that the installed fabric is fully saturated.

In wet layup application, VB5G is first saturated with resin and the wet fabric is applied to the structure. In all cases, care must be taken to remove any entrapped air bubbles.

In application of VB5G using the wet layup or dry layup technique, any of QuakeBond™ resins such as J300SR; J333SR or J401HCR can be employed. For more details, refer to the Product Data Sheet for the particular resin being used.

Installation of QuakeWrap® fabrics must be performed only by specially trained and approved contractors.

Fabric can be cut to appropriate length using a commercial quality heavy duty scissor. Since dull or worn cutting tools can damage, weaken or fray the fiber, their use should be avoided.

LIMITATIONS

Design calculations must be made and certified by an independent licensed professional engineer. System is a vapor barrier. Concrete should not be encapsulated in areas of freeze/thaw.

CAUTION

QuakeWrap™ VB5G is non-reactive. However, caution must be used when handling since a fine glass dust may be present on the surface. Gloves must therefore be worn to protect against skin irritation. Caution must also be used when cutting the fabric to protect against airborne glass dust generated by the cutting procedure. Use of an appropriate, properly fitted NIOSH approved respirator is recommended.

KEEP OUT OF REACH OF CHILDREN.
NOT FOR INTERNAL CONSUMPTION.

FOR INDUSTRIAL USE ONLY.
KEEP CONTAINER CLOSED TIGHTLY.

QuakeWrap, Inc. warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current technical data sheet if used as directed within shelf life. User determines suitability of product for intended use and assumes all risks. Buyer's sole remedy shall be limited to the purchase price or replacement of product exclusive of labor or cost of labor. NO OTHER WARRANTIES EXPRESS OR IMPLIED SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. QUAKEWRAP, INC. SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES.