



TECHNICAL DATA

TUFFLEX BG-3000

BELOW GRADE MEMBRANE WATERPROOFING – ROLLER GRADE

1. GENERAL

TUFFLEX BG-3000 is a single component, moisture-cured, liquid applied, polyurethane waterproofing membrane. It is supplied in a Vertical Roller Grade (RG) consistency which is suitable for vertical surfaces as well as the horizontal portions of planter boxes. For larger horizontal surface areas it is available in a horizontal grade (H). The cured membrane meets the performance requirements of ASTM Specification C-836-84.

2. PRODUCT FEATURES

BASIC USES: **TUFFLEX BG-3000** provides a seamless, continuous waterproofing membrane that remains flexible over a broad temperature range. **TUFFLEX BG-3000** may be applied onto vertical or low slope surfaces, providing positive between slab or below grade waterproofing. The excellent adhesion properties inhibit lateral water migration between the membrane and the substrate. The toughness and flexibility of **TUFFLEX BG-3000** enables the membrane to bridge hairline shrinkage cracks in concrete. Suggested areas of application are as follows:

- Waterproofing foundations or exterior basement walls, or other structures that are to be backfilled.
- Waterproofing under laundry and bathroom floor slabs.
- Waterproofing under shower pans with separate mortar bed.
- Waterproofing inside planter boxes and planter berm walls.
- Waterproofing under tile or terrazzo floors with separate mortar bed.

TUFFLEX BG-3000 cures faster when applied during warm weather and high humidity conditions and slower when applied during cooler weather and low humidity conditions.

LIMITATIONS: Not designed for use as a finished, exposed-membrane traffic surface. Do not apply over any type of lightweight concrete without prior written approval. Wherever metal decking is used as the concrete form, it must be ventilated. Most concrete compositions or methods of Below-Grade construction will require the use of **TUFF-POXY #2** or **#3** solvent based epoxy primers and **TUFF-TAPE "PW" Polyester Reinforcing Mat**.

SHELF LIFE: Nine (9) months after manufacture when continuously stored indoors in unopened metal pails at temperatures under 80°F. Liquid membrane is moisture reactive so containers that have been opened must be used within a few days.

3. INSTALLATION

SURFACE PREPARATION: All surfaces to be coated must be thoroughly cleaned and dried. Apply **TUFF-POXY #2** or **#3** Epoxy Primer in those installations and all areas where recommended. All cracks over 1/16 inch in width must be routed-out and filled flush with a polyurethane sealant and detailed with a 30 mil preparatory stripe coat of **TUFFLEX BG-3000**. Install all required neoprene or polyester flashing reinforcement and sealant cants. It is recommended that large-pour slabs of new concrete be cured at least 28 days prior to application. All voids or excessively rough areas in poured concrete and all masonry or block surfaces should be parged or grouted smooth with an approved cementitious grout.

DETAIL WORK: Install all required sealant cants, polyester flashing reinforcement and any needed primers. At intersections of horizontal membrane to vertical membrane or to vertical walls, columns, pipes or other penetrations, install a 3/4" cant bead of polyurethane sealant at the meeting angle.

APPLICATION: **TUFFLEX BG-3000** may be applied by heavy duty roller, trowel or heavy duty squeegee. It is recommended to apply in two or

three coats, at a rate of 40 square feet per gallon per coat, in order to obtain a uniform composite dry film thickness of either 60 mils or 90 mils. A minimum of 16-24 hours curing time should be allowed between coats. Below grade and between slab applications typically require the use of **TUFFLEX** approved Protection Board or **TUFFLEX "TUFF-DRAIN"** Geotextile Drainage Composite. Most installations will require the continuous use of **TUFF-TAPE "PW"** Polyester Reinforcing Mat.

4. MAINTENANCE

If **TUFFLEX BG-3000** is damaged, it can be repaired by abrading the surface, lightly wipe the surface with acetone or xylene and recoating it with the **TUFFLEX BG-3000** coating.

5. AVAILABILITY AND COST

TUFFLEX BG-3000 is supplied through Building Material Distributors. Prices vary with quantity and packaging. For the name of your nearest Distributor please contact the factory. THESE PRODUCTS ARE DESIGNED AND MANUFACTURED TO BE INSTALLED BY PROFESSIONAL INSTALLERS FAMILIAR WITH SURFACE PREPARATION AND APPLICATION PROCEDURES. ALL OTHERS SHOULD CONSULT A PROFESSIONAL INSTALLER. THOSE WHO CHOOSE TO INSTALL THESE PRODUCTS WITHOUT PROFESSIONAL ASSISTANCE DO SO AT THEIR OWN RISK.

6. WARNINGS AND HAZARDS

Personnel applying these coatings should wear protective clothing, use respiratory protection, safety goggles and gloves. Avoid contact of material with skin or eyes and avoid breathing vapors. Mix and apply in well-ventilated areas and observe normal safety precautions required for solvent containing polyurethane and epoxy materials. Read the SDS sheets before using this product. THIS PRODUCT IS FOR PROFESSIONAL USE ONLY

7. TECHNICAL SERVICE

All of the latest updates to product data and specifications are available by contacting the **TUFFLEX** Polymers Technical Service Dept. @ 1-888-TUFFLEX. Since product data and specifications change, it is the user's responsibility to make certain the most current versions of product data and specifications are being used.

8. LIMITED WARRANTY

TUFFLEX POLYMERS (TUFFLEX) warrants this product to be free of defects in workmanship and materials only at the time of shipment from our factory. If any **TUFFLEX** materials prove to contain manufacturing defects that substantially affect their performance, **TUFFLEX** will, at its option, replace the materials or refund its purchase price.

This limited warranty is the only warranty extended by **TUFFLEX** with respect to its materials. There are no other warranties, including the implied warranties of merchantability and fitness for a particular purpose. **TUFFLEX** specifically disclaims liability for any incidental, consequential, or other damages, including but not limited to, loss of profits or damages to a structure or its contents, arising under any theory of law whatsoever.

The dollar value of **TUFFLEX'S** liability and buyer's remedy under his limited warranty shall not exceed the purchase price of the **TUFFLEX** material in question.

9. TECHNICAL DATA

ELASTA-TUFF BG-3000
(Typical Values)

<i>PROPERTY</i>	<i>BG-3000-RG-SC 100 VOC</i>	<i>BG-3000-H-SC 100 VOC</i>	<i>TEST METHOD</i>
Solids Content	92 ± 2%	92 ± 2%	-----
VOC Content	100 grams/liter	100 grams/liter	Calculated
Flash Point	Above 120°F	Above 120° F	-----
Hardness, Shore A	45 ± 5	40 ± 5	ASTM D-2240
Tensile Strength	350 ± 50 psi	300 ± 50 psi	ASTM D-412
Ultimate Elongation	500 ± 100%	550 ± 100%	ASTM D-412
Tear Strength, Die C	75 pli	65 pli	ASTM D-624
Adhesion to Primed Concrete	15 lb/in	15 lb/in	ASTM D-903
Moisture Vapor Transmission (grams/hour/sq.ft)	<1.5	<1.5	ASTM E-96
Service Temp. Range	-30°F to + 180°F	-30°F to + 180°F	-----

BG-3000-RG (09)