

# KINGFIELD CONSTRUCTION PRODUCTS



## TURBO-SEAL P™

### Single Component Polymer Rubber Gel

#### KEY FEATURES

**Turbo-Seal** is a single component, <1% VOC, highly elastomeric modified polymer rubber gel with exceptional adhesive properties.

**Turbo-Seal** is a component of the composite **Turbo-Seal GEL-FLEX SYSTEM**, a composite waterproofing system comprised of flexible polymer rubber gel and durable HDPE sheet.

**Turbo-Seal** is a high performance waterproofing membrane for vertical and horizontal applications in below grade structures, plaza decks, planters, inverted roof systems and zero lot line construction.

**Turbo-Seal's** superior flexibility, adhesiveness and self-healing characteristics make Turbo-Seal the ideal choice for effective, permanent waterproofing. Turbo-Seal can be applied to green concrete, reducing overall project time and costs.

**Turbo-Seal** forms a cold fluid applied membrane with a progressive cavity pump.

#### APPLICATIONS

**Turbo-Seal** is applied in both Above and Below Grade and is suitable for use in new construction and repair applications.

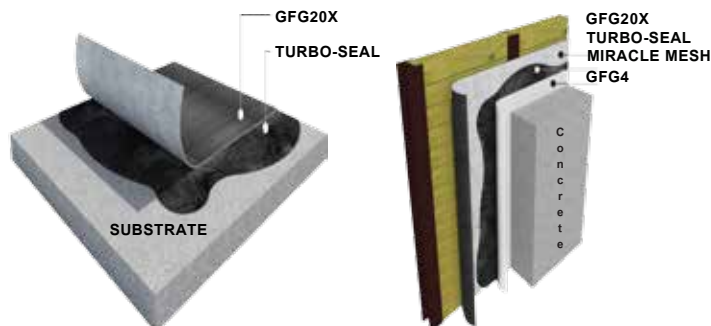
#### DIRECT SUBSTRATE APPLICATION    PRE-APPLIED WATERPROOFING

##### (POSITIVE SIDE)

- Elevator Pits
- Foundation Slab & Walls
- Green Roofs
- Leak Repair
- Planters
- Plaza Decks
- Podiums
- Restoration
- Terraces
- Wet Rooms

##### (BLINDSIDE)

- Cut & Cover
- Tunnels
- Underslab & Split-Slab
- Zero-Lot Line Foundations



#### Substrate Preparation and Installation

The following are general installation guidelines. For the most up to date installation guidelines and details, please access the technical resources section of the Kingfield website ([kingfieldcp.com](http://kingfieldcp.com)). Additional technical information can be requested from a technical representative by calling 612-225-5167.

#### Hydrogel Gel-Flex Composite Waterproofing System

Cold Trowel Applied, Non-Curing Polymer Rubber Gel  
Horizontal/Vertical & Blindside/Positive Application

#### ADVANTAGES

**Single component material with high solids content.**

Monolithic fully adhered, cold fluid applied membrane. Self healing/self sealing.

**Remains flexible and durable. Double protection of sheet and polymer rubber gel membrane.**

Resistant to hydrocarbons and chemical attack.

**Applies to green concrete, no surface primer is necessary. Remains flexible without curing.**

> 20% recycled content.

Environmentally responsible.

**No material shrinkage in application. <1% VOC's. No mixing components.**

Fast, productive application ensures timely project completion. Adhesion eliminates lateral water migration.

**Composite assembly dynamically responds to substrate movement. Excellent crack bridging capability.**

Environmentally durable to soil contaminates and adverse soil conditions.

**No need to wait 28 days prior to application. Application is quick and substrate preparation is minimal.**

Contributes to LEED qualification.

#### TURBO-SEAL GEL-FLEX COMPOSITE WATERPROOFING SYSTEM COMPONENTS

##### GF-450 DIRECT APPLIED (POSITIVE SIDE) WATERPROOFING SYSTEM

###### TURBO-SEAL

— TROWEL APPLIED POLYMER RUBBER GEL

###### GFG20X HDPE SHEET

— DURABLE, CHEMICAL RESISTANT 16MIL HDPE SHEET  
— BACKED WITH A 15MIL NON-WOVEN GEO-TEXTILE

###### DUROTAPE

— HIGHLY ADHESIVE ELASTOMERIC SEAMING AND DETAILING TAPE

##### GF-PRE PRE-APPLIED (BLINDSIDE) WATERPROOFING SYSTEM

###### TURBO-SEAL

— TROWEL APPLIED POLYMER RUBBER GEL

###### GFG20X HDPE SHEET

— DURABLE, CHEMICAL RESISTANT 16MIL HDPE SHEET  
— BACKED WITH A 15MIL NON-WOVEN GEO-TEXTILE

###### MIRACLE MESH HDPE

— HIGH DENSITY POLYETHYLENE NETTING

###### GFG4 PE SHEET

— LIGHTWEIGHT 28MIL POLYPROPYLENE NON-WOVEN SHEET  
— BACKED WITH A 4MIL UV-RESISTANT POLYETHYLENE COATING

###### DUROTAPE

— HIGHLY ADHESIVE ELASTOMERIC SEAMING AND DETAILING TAPE

TURBO-SEAL PHYSICAL PERFORMANCE DATA	RESULTS	TESTING METHOD
Solids Content	75%	ASTM D1353
Resistance to Decay	0% moisture permeation and weight change	ASTM E-154-88
Hardness*	80	ASTM C836-89
Puncture Resistance*	105 lbf	ASTM E-154
Flash Point	> 200° F	ASTM D56
Tensile Strength*	190 ± 0.11 lbf	ASTM D-412-98
Elongation %	> 390%	ASTM C-1135
Hydrostatic Pressure Resistance*	169 ± 3 lbs/in2	ASTM D-751
Adhesion to Concrete	Rating of 1 (Excellent)	ASTM D-412-98
Crack Bridging Flexibility	No cracks	ASTM C-836-89
Moisture Permeability*	<0.005 perms	ASTM E-96-80

## SUBSTRATE PREPARATION AND OVERVIEW OF GENERAL INSTALLATION GUIDELINES

For the most up to date installation guidelines and details, please access the technical resources section of the Kingfield website ([kingfieldcp.com](http://kingfieldcp.com)).

\*Additional technical information can be requested from a technical representative by calling +1 (612) 225-5167

<b>EQUIPMENT</b>	<p><b>Turbo-Seal</b> should be applied with a progressive cavity pump. *Contact Kingfield Construction Products for information on recommended pump equipment.</p>
<b>CONCRETE SURFACES</b>	<p>Ensure that the substrate is relatively smooth and flat with no protrusions, discontinuity, or irregularities that would inhibit the application of the membrane.</p> <p>All surface debris that would impede proper application must be removed, such as frost, loose aggregate, dirt, oil, grease, concrete fragments, sticks, roots, etc. Remove debris with a wire brush, stiff broom or pressure washer.</p> <p>Any inclusion such as tie-holes or bugholes greater than ¼ inch in diameter or depth must be filled. Poor quality surfaces with excessive laitance may require shotblasting or pressure washing to provide a dense smooth surface free from contaminants.</p> <p>*See ASTM D5295, Preparation of Concrete Surfaces for Adhered Membrane Waterproofing Systems, for further details on substrate preparation.</p>
<b>DAMP SURFACES</b>	<b>Turbo-Seal</b> may be applied to green (minimum 3 days cure time) concrete. Remove any visible water prior to application.
<b>MINIMUM APPLICATION TEMPERATURE</b>	<b>Turbo-Seal</b> spray may be applied at temperatures below 32°F provided there is no frost or condensation on the substrate.
<b>APPLICATION</b>	<p><b>DIRECT APPLICATION TO CONCRETE SUBSTRATES</b> Apply <b>Turbo-Seal</b> to substrate at an even 80-90 mil thickness +/- 20mil, embed <b>GFG20X</b> sheet into <b>Turbo-Seal</b>, lapping seams by 6". Solvent wipe <b>GFG20X</b> seams to ensure an intimate bond when taping the seams with <b>Durotape</b>. After the seams are taped, the waterproofing system is complete.</p> <p><b>PRE-APPLIED/BLIND SIDE WATERPROOFING APPLICATION</b> Attach <b>GFG20X</b> sheet to substrate, lapping seams by 6". Solvent wipe <b>GFG20X</b> sheet seams to ensure bond when taping the seams with <b>Durotape</b>. Mechanically fasten <b>Miracle Mesh HDPE</b> to <b>GFG20X</b> sheet. Do not overlap edges of <b>Miracle Mesh</b> sheet. Fasten <b>Miracle Mesh</b> to <b>GFG20X</b> sheet tightly to minimize bumps or ripples. Apply <b>Turbo-Seal</b> to <b>GFG20X/Miracle Mesh</b> assembly at an even 80- 90 mil thickness. Embed <b>GFG4</b> Protection Sheet into <b>Turbo-Seal</b> membrane immediately after application of <b>Turbo-Seal</b>. Lap <b>GFG4</b> sheet seams a minimum of 1". Secure seams so as to prevent wind lift or tearing from environmental conditions prior to concrete pour. Ensure any damage to the in place waterproofing membrane is repaired prior to concrete pour.</p>
<b>LIMITATIONS</b>	At time of application, <b>GEL-FLEX SYSTEM</b> components must be installed in immediate succession and then environmentally protected.
<b>CLEAN UP</b>	Cleaning can be done with any solvent or citrus based cleaner.
<b>HEALTH AND SAFETY OVERVIEW</b>	Avoid contact with skin and eyes. Follow all recommended safety guidelines for safe worksites. Wear suitable gloves, masks, protective clothing and safety glasses. See <b>MSDS</b> .
<b>PACKAGING &amp; YIELD</b>	<p><b>Turbo-Seal</b> is packaged in 5.28 gallon (20L) cardboard cartons.</p> <ul style="list-style-type: none"> <li>@ 90mil thick = 16 ft2/gallon*</li> <li>Average 84.48 ft2/package*</li> </ul> <p>*Actual coverage and thickness used depends on the substrate and applicator method.</p>
<b>TRANSPORTATION</b>	<b>Turbo-Seal</b> is classified as a DOT non-hazardous material.
<b>STORAGE</b>	Store in unopened containers in clean, dry conditions at 50 to 80 Fahrenheit.
<b>SHELF LIFE</b>	Indefinite, when stored according to recommended storage guidelines.

## KINGFIELD CONSTRUCTION PRODUCTS

Minneapolis, Minnesota

[www.kingfieldcp.com](http://www.kingfieldcp.com)

## TECHNICAL SUPPORT

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TURBO-SEAL PRODUCT DATA SHEET – v4.09.15.14

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