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By Licensing Administrative Assistant at 9:39 am, Sep 12, 2011



## Fire Code Compliant Geomembranes

### 1. Product Description

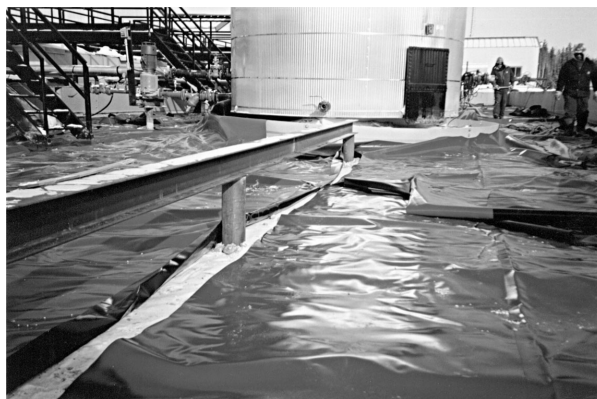
Layfield's HAZGARD® 535 and HAZGARD® 1000 have been tested in Canada to meet the requirements of Part 4 of the National and Provincial Fire Codes for the secondary containment of gasoline, diesel, and other fuels. HAZGARD® 535 is rated for aboveground and HAZGARD® 1000 is rated for both above or belowground applications. HAZGARD® 535 is fire retardant and can be used for exposed applications while HAZGARD® 1000 must be backfilled. Both materials are rated for the containment of flammable and combustible liquids including oxygenated fuels that contain alcohol. In section 4.3.7.2 2) of the 2005 National Fire Code the requirement is that "Where a membrane provides the level of impermeability required ... it shall conform to ULC/ORD C58.9, Secondary Containment Liners for Underground and Aboveground Flammable and Combustible Liquid Storage Tanks." HAZGARD® 535 and HAZGARD® 1000 were independently evaluated and found to comply fully with the required test methods.

### 2. Technical Data

Materials information is on page 2.

### 3. Installation

Layfield's HAZGARD® materials are flexible enough to be prefabricated at our facility into large panels. The prefabricated panel is accordian folded, rolled onto a core, and then delivered to the job site secured to a pallet. Prefabricated panels can often cover a small project with a single panel. Often local labor forces can be used to unroll and unfold the panel, while on larger projects Layfield installation forces can be used to join panels. If field welds are required HAZGARD® materials are welded with wedge welders for production seaming or hand hot air welders for repair. Each liner panel will have a label that will indicate the unrolling and the unfolding direction. Placement of the panel in the correct location prior to unrolling will greatly ease installation. For more information on Fire Code compliant liners, for installation tech support, or for repair support, call the Layfield office in your area.



### 4. Availability and Cost

Available from Layfield or distributors. Call 425-254-1075 Pacific time, 780-453-6731 Mountain time, or 905-761-9123 Eastern time

### 5. Manufactured By

Layfield Environmental Systems Corp.  
Layfield Geosynthetics & Ind. Fabrics Ltd.

### 6. Warranty

Products sold will meet Layfield's published specifications. Any extended warranty required by the buyer must be negotiated at the time of order. Extended warranties may be available on this product and may be at extra cost. Full warranty details are available from Layfield.

### 7. Maintenance

Geomembranes should be inspected at least once per year for damage, stress, or any other detrimental condition. The entire containment area should be visually inspected annually. Layfield provides geomembrane maintenance services on request.

### 8. Filing Systems

[www.LayfieldGroup.com](http://www.LayfieldGroup.com)  
[www.geomembranes.com](http://www.geomembranes.com)

**9. Material Properties**

1 Dec 2010	<b>HAZGARD® Minimum Material Properties</b>		
<b>Style</b>	<b>Test Method</b>	<b>HAZGARD® 535</b>	<b>HAZGARD® 1000</b>
Fire Code Compliant		Yes; Class 1A Aboveground	Yes; Class 1B Below/Aboveground
28d Permeance to Test Fluids*		<10 g/m <sup>2</sup> /hr	<5 g/m <sup>2</sup> /hr
30d Compatibility to Test Fluids*		<10% Wt Change	<10% Wt Change
30d Soil Burial		Pass	Pass
Tear Strength after 30d in Gasoline		>90% retained	>90% retained
Flammability		Pass; Flame Out in <5 sec	not for exposed use
Thickness	ASTM D5199	35 mil 0.88 mm	26 mil 0.65 mm
Tensile Strength	ASTM D751	300 lbs 1330 N	400 x 350 lbs 1780 x 1560 N
Elongation	ASTM D751	1000%	25 %
Low Temperature	ASTM D1790/D2136	-40°F -40°C	-45°F -43°C
*Test Fluids include 16 different flammable, combustible, and oxygenated liquids as defined by the ULC/ORD C58.9.			

**10. Shop Seam Strengths**

28 Oct 2009	<b>HAZGARD® Minimum Shop Seam Strengths</b>		
<b>Style</b>	<b>ASTM (U)</b>	<b>HAZGARD® 535(U)</b>	<b>HAZGARD® 1000(S)</b>
Heat Bonded Seam Strength	D6392 (U) D751 (S)	55 lbs 9.6 N/mm	200 lbs 890 N
Heat Bonded Peel Adhesion Strength	D6392 25.4 mm (1") Strip	45 lbs 7.9 N/mm	19 ppi 3.3 N/mm

**11. Field Seam Strengths**

28 Oct 2009	<b>HAZGARD® Minimum Field Seam Strengths</b>		
<b>Style</b>	<b>ASTM (U)</b>	<b>HAZGARD® 535(U)</b>	<b>HAZGARD® 1000(S)</b>
Heat Bonded Seam Strength	D6392 (U) D751 (S)	55 lbs 9.6 N/mm	200 lbs 890 N
Heat Bonded Peel Adhesion Strength	D6392 25.4 mm (1") Strip	45 lbs 7.9 N/mm	19 ppi 3.3 N/mm

Layfield  
Construction Materials

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