



# GEOMEMBRANE SOLUTIONS



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*AquaMaster*  
**STRONGER LIGHTER FASTER**





# AquaMaster® Geomembranes

From agricultural irrigation to industrial applications, AquaMaster® is the proven choice for your site requirements.

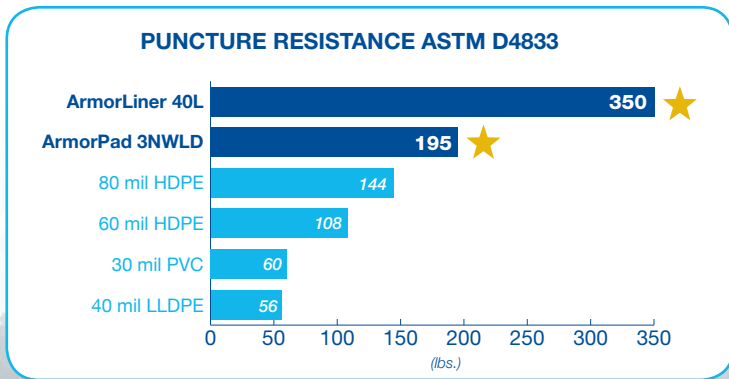
*AquaMaster® from IPG® provides sound solutions for water resource management and a wide range of civic and industrial applications such as conventional and non-conventional oil and gas extraction, above ground tank liners, irrigation reservoirs and canals, mining applications and temporary waste covers. With enhanced hydrostatic resistance and our high tear strength scrim technology, our AquaMaster® lining is guaranteed to meet your water containment needs.*

*Our geomembrane portfolio is comprised of two product families: NovaLiner™ for standard applications with warranties up to 10 years and our ArmorLiner™ for more demanding applications, with warranties up to 20 years.*

## Designed for Easy Installation and Long Life

AquaMaster® woven coated fabric liners & covers incorporate exclusive polyolefin coatings for maximum toughness and abrasion resistance. These liners are available in heavy, medium and lightweight fabrics with varying coating thicknesses and colors depending on your site requirements.

AquaMaster® liners & covers feature unique benefits that make it the most effective and economical choice.



## Designed for Containment

Whether your jobsite is in the arid regions of the American South West or the Canadian Arctic, IPG® has the right product for your needs. The exclusive AquaMaster® product line is the perfect choice for a wide range of containment applications. Our product line is certified drinking water safe to NSF-61, the most respected independent water testing organization in America.



Certified to  
NSF/ANSI 61

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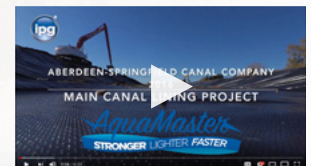
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**NOVA LINER**

**NOVA GRIP™**

Learn more about Aquamaster by going to [www.itape.com/aquamaster](http://www.itape.com/aquamaster) or by scanning the QR code and check out the video on our website that features the installation of IPG's Aquamaster Geomembrane - ArmorLiner.



# BENEFITS

- Lighter weight for more cost effective transportation
- Wider widths which mean fewer field seams
- Can be factory prefabricated for faster and easier installations
- Added strength for puncture and tear resistance
- Engineered coatings provide exceptional hydrostatic resistance and heat seaming weldability
- Technologically designed for UV resistance
- Custom colors available

**STRONGER** than HDPE

LIGHTER roll weight

**FASTER** installation time

# APPLICATIONS

## Water Management

- Settling basins
- Landfill reservoirs
- Golf course ponds and other aesthetic features
- Snowmaking water reserve ponds
- Canal linings

## Municipal

- Fire reservoirs
- Road Construction and Other D.O.T. Applications
- Storm water detention and retention ponds
- Drainage systems
- Waste water containment
- Secondary containment

## Oil & Gas

- Hydraulic fracturing wastewater containment
- Evaporation ponds
- Temporary and permanent oilfield pit liners
- Above ground impoundments
- Containment booms

## Aquacultural & Agricultural

- Algae harvesting support ponds
- Irrigation canals and ponds
- Aquaculture tank liners
- Raceway ponds

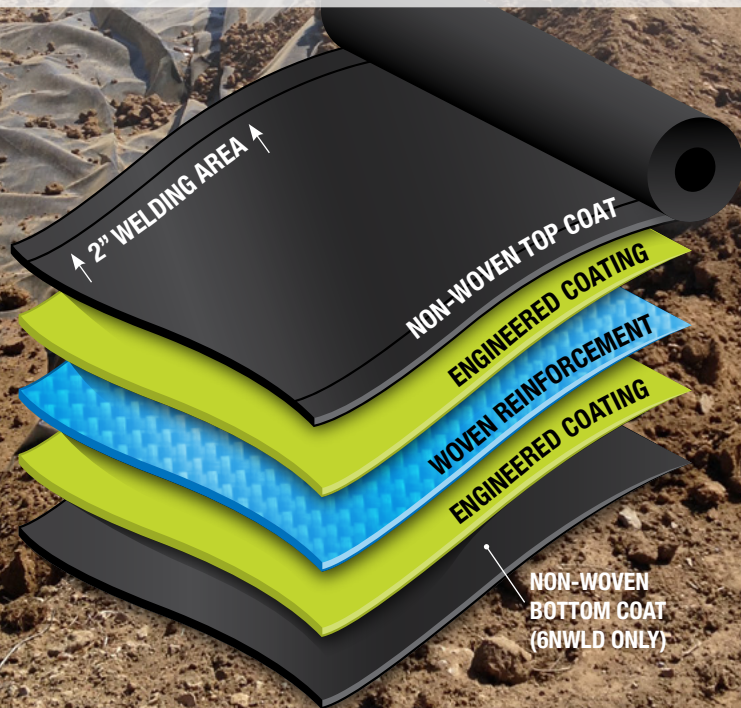


# Non-Woven Laminate

ArmorPad™ 6NWL is a medium weight woven coated geomembrane with a single medium weight non-woven laminated layer, which provides a strong and reliable barrier to water, other fluids, and industrial contaminants. The non-woven laminated layers reduce slip occurrence on the top surface, or provide adhesion for concrete, and improve puncture resistance on the bottom surface.

**Recommended Applications:** Canal Lining, Well Pads

**Warranty: 2 years** (exposed); **20 years** (buried or with the non-woven not exposed)



## ArmorPad 6NWL

Property	ASTM	Specification
Base Fabric		Black HDPE
Coating		LDPE + PP Nonwoven
Weight <i>oz/sq yd (gsm)</i>	D5261	22 (750) +/- 5%
Thickness <i>mils (mm)</i>	D1777	24 (0.60) +/- 10%
Grab Tensile <i>lb (N)</i>	D7004	MD 325 (1440) / TD 262.5 (1165)
Tongue Tear - Large Scale <i>lb (N)</i>	D5884	MD 137.5 (610) / TD 150 (665)
Mullen Burst <i>psi (kPa)</i>	D751	715 (4925)
Hydrostatic Resistance <i>psi (kPa)</i>	D751	400 (2756)
Hydraulic Conductivity <i>cm/s</i>	Calc. MVTR E96	$7.73 \times 10^{-12}$
Puncture Resistance <i>lb (N)</i>	D4833	187.5 (830)
Dimensional Stability %	D1204	MD -3.6 / TD -1
Low Temperature Flex	D2136	MD&TD: Pass @ -65°C (-85°F)
Accelerated UV Weathering* % Retained Strength	G154	>90
Limited Warranty (Exposed) Years		2
Limited Warranty (Buried) Years		20

\*Q.U.V [A-340 Lamps]; 8 hrs UV @ 60°C; 4 hrs condensation @ 50°C



**ARMOR  
PAD**

# ArmorPad 6NWLD

Property	ASTM	Specification
Base Fabric		Black HDPE
Coating		LDPE + PP Nonwoven
Weight <i>oz/sq yd (gsm)</i>	D5261	22 (750) +/- 5%
Thickness <i>mils (mm)</i>	D1777	24 (0.60) +/- 10%
Grab Tensile <i>lb (N)</i>	D7004	MD 425 (1890) / TD 312.5 (1390)
Tongue Tear - Large Scale <i>lb (N)</i>	D5884	MD 137.5 (610) / TD 150 (665)
Mullen Burst <i>psi (kPa)</i>	D751	925 (6375)
Hydrostatic Resistance <i>psi (kPa)</i>	D751	400 (2756)
Hydraulic Conductivity <i>cm/s</i>	Calc. MVTR E96	$7.73 \times 10^{-12}$
Puncture Resistance <i>lb (N)</i>	D4833	262.5 (1165)
Dimensional Stability %	D1204	MD -3.6 / TD -1
Low Temperature Flex	D2136	MD&TD: Pass @ --65°C (-85°F)
Accelerated UV Weathering* % Retained Strength	G154	>90
Limited Warranty (Exposed) Years		2
Limited Warranty (Buried) Years		20

\*Q.U.V [A-340 Lamps]; 8 hrs UV @ 60°C; 4 hrs condensation @ 50°C

# Double Non-Woven Laminate

ArmorPad™ 6NWLD is a medium weight woven coated geomembrane with a double medium weight non-woven laminated layer, which provides a strong and reliable barrier to water, other fluids, and industrial contaminants. The non-woven laminated layers reduce slip occurrence on the top surface, or provide adhesion for concrete, and improve puncture resistance on the bottom surface.

**Recommended Applications:** Canal Lining, Well Pads

**Warranty:** 2 years (exposed); 20 years (buried)



# Non-Woven Laminate

ArmorPad™ 3NWL (non-woven laminate) is a medium weight woven coated geomembrane with a single lightweight non-woven laminated to one side. This provides a strong and reliable barrier to water, industrial contaminants and other fluids. The non-woven layer reduces slip occurrence on the top surface, or provides adhesion for concrete, while increasing the puncture resistance when placed facing down.

**Recommended Applications:** Canal Lining, Well Pads

**Warranty:** 2 years (exposed); 20 years (buried or with the non-woven not exposed)

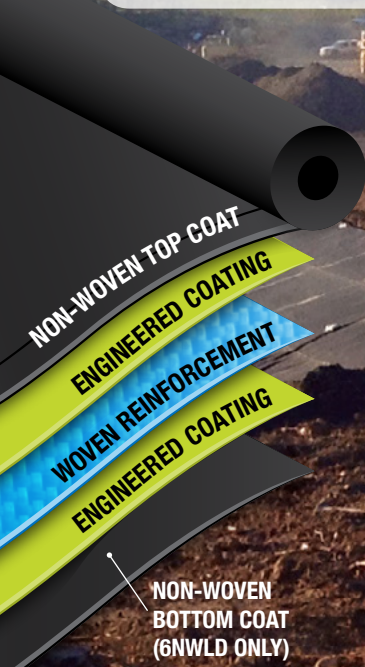
## ArmorPad 3NWL

Property	ASTM	Specification
Base Fabric		Black HDPE
Coating		LDPE + PP Nonwoven
Weight <i>oz/sq yd (gsm)</i>	D5261	13.9 (471) +/- 5%
Thickness (w/o Non-woven) <i>mils (mm)</i>	D1777	24 (0.60) +/- 10%
Grab Tensile <i>lb (N)</i>	D7004	MD 300 (1332) / TD 250 (1110)
Tongue Tear - Large Scale <i>lb (N)</i>	D5884	MD 100 (444) / TD 100 (444)
Mullen Burst <i>psi (kPa)</i>	D751	530 (3652)
Hydrostatic Resistance <i>psi (kPa)</i>	D751	400 (2756)
Hydraulic Conductivity <i>cm/s</i>	Calc. MVTR E96	$7.73 \times 10^{-12}$
Puncture Resistance <i>lb (N)</i>	D4833	195 (866)
CBR Static Puncture <i>lb (N)</i>	D6241	1128 (5016)
Dimensional Stability <i>%</i>	D1204	MD -3.6 / TD -2.5
Low Temperature Flex	D2136	MD&TD: Pass @ -40°C (-40°F)
Accelerated UV Weathering* <i>% Retained Strength</i>	G154	>90
Limited Warranty (Exposed) <i>Years</i>		2
Limited Warranty (Buried) <i>Years</i>		20

\*Q.U.V [A-340 Lamps]; 8 hrs UV @ 60°C; 4 hrs condensation @ 50°C



**ARMOR  
PAD™**



# ArmorPad 3NWLD

Property	ASTM	Specification
Base Fabric		Black HDPE
Coating		LDPE
Weight <i>oz/sq yd (gsm)</i>	D5261	18 (610) +/- 5%
Thickness <i>mils (mm)</i>	D1777	24 (0.60) +/- 10%
Grab Tensile <i>lb (N)</i>	D7004	MD 400 (1776) / TD 300 (1332)
Tongue Tear - Large Scale <i>lb (N)</i>	D5884	MD 100 (444) / TD 100 (444)
Mullen Burst <i>psi (kPa)</i>	D751	650 (4479)
Hydrostatic Resistance <i>psi (kPa)</i>	D751	400 (2756)
Hydraulic Conductivity <i>cm/s</i>	Calc. MVTR E96	$7.73 \times 10^{-12}$
Puncture Resistance <i>lb (N)</i>	D4833	195 (866)
CBR Static Puncture <i>lb</i>	D6241	1351 (5998)
Dimensional Stability %	D1204	MD -3.6 / TD -2.5
Low Temperature Flex	D2136	MD&TD: Pass @ -40°C (-40°F)
Accelerated UV Weathering* % Retained Strength	G154	>90
Limited Warranty (Exposed) Years		2
Limited Warranty (Buried) Years		20

\*Q.U.V [A-340 Lamps]; 8 hrs UV @ 60°C; 4 hrs condensation @ 50°C

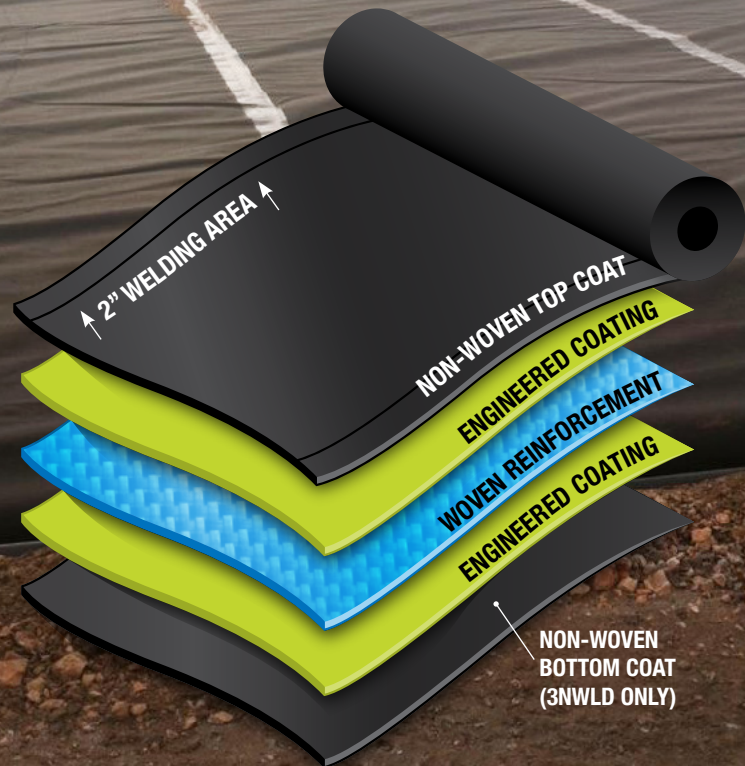


# Double Non-Woven Laminate

ArmorPad™ 3NWLD is a medium weight woven coated geomembrane with a double lightweight non-woven laminated layer, which provide increased barrier to water, other fluids and industrial contaminants. The non-woven layer on the top reduces slip occurrence, or provides adhesion for concrete, while the non-woven bottom layer increases puncture and tear resistance.

**Recommended Applications:** Canal Lining, Well Pads

**Warranty:** 2 years (exposed); 20 years (buried)



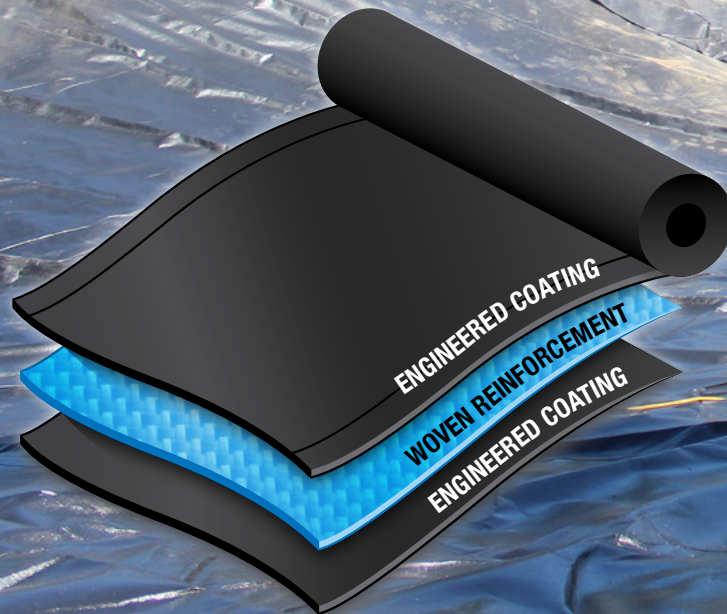


# Premium Liner/Cover

Our AquaMaster ArmorLiner 24 is a premium reinforced geomembrane with a woven HDPE fabric that increases puncture resistance. This tough membrane is still flexible enough for easy installation in complex projects. ArmorLiner 24 has superior tear resistance and is perfect for long term exposure applications.

**Recommended Applications:** Decorative Ponds, Canal Reservoirs, Waste Water Containment, Secondary Containment

**Warranty: 10 years** (exposed); **20 years** (buried)



## ArmorLiner 24

Property	ASTM	Specification
Base Fabric		Black HDPE
Coating		LDPE
Weight <i>oz/sq yd (gsm)</i>	D5261	11.5 (390)
Thickness <i>mils (mm)</i>	D1777	24 (0.60) +/- 10%
Grab Tensile <i>lb (N)</i>	D7004	MD 350 (1554) / TD 335 (1487)
Tongue Tear - Large Scale <i>lb (N)</i>	D5884	MD 110 (488) / TD 110 (488)
Mullen Burst <i>psi (kPa)</i>	D751	525 (3617)
Hydrostatic Resistance <i>psi (kPa)</i>	D751	425 (2928)
Hydraulic Conductivity <i>cm/s</i>	Calc. MVTR E96	$1.4 \times 10^{-12}$
Puncture Resistance <i>lb (N)</i>	D4833	182 (808)
CBR Static Puncture <i>lb (N)</i>	D6241	1157 (5137)
Dimensional Stability %	D1204	MD -4.7 / TD -1.6
Low Temperature Flex	D2136	MD&TD: Pass @ -65°C (-85°F)
Accelerated UV Weathering* % Retained Strength	D7238	>90
Limited Warranty (Exposed) Years		10
Limited Warranty (Buried) Years		20

\*Q.U.V [A-340 Lamps]; 20 hrs UV @ 75°C; 4 hrs condensation @ 60°C



# ArmorLiner 30

Property	ASTM	Specification
Base Fabric		Black HDPE
Coating		LDPE
Weight <i>oz/sq yd (gsm)</i>	D5261	15 (509)
Thickness <i>mils (mm)</i>	D1777	30 (0.75) +/- 10%
Grab Tensile <i>lb (N)</i>	D7004	MD 340 (1510) / TD 520 (2309)
Tongue Tear - Large Scale <i>lb (N)</i>	D5884	MD 45 (200) / TD 55 (244)
Mullen Burst <i>psi (kPa)</i>	D751	700 (4823)
Hydrostatic Resistance <i>psi (kPa)</i>	D751	610 (4203)
Hydraulic Conductivity <i>cm/s</i>	Calc. MVTR E96	$1.87 \times 10^{-12}$
Puncture Resistance <i>lb (N)</i>	D4833	200 (888)
CBR Static Puncture <i>lb (N)</i>	D6241	1481 (6576)
Dimensional Stability %	D1204	MD -4.4 / TD -1.8
Low Temperature Flex	D2136	MD&TD: Pass @ -65°C (-85°F)
Accelerated UV Weathering* % Retained Strength	G154	>90
Limited Warranty (Exposed) Years		15
Limited Warranty (Buried) Years		20

\*Q.U.V [A-340 Lamps]; 8 hrs UV @ 60°C; 4 hrs condensation @ 50°C

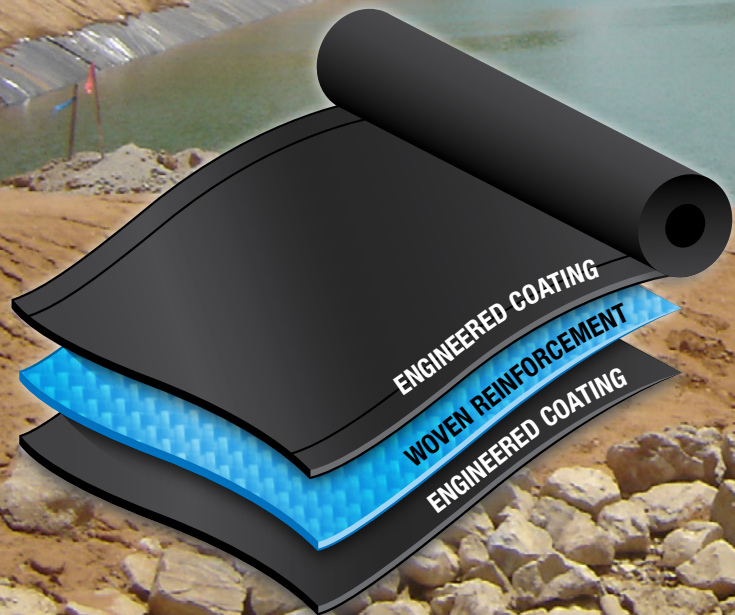


# Premium Liner/Cover

Our AquaMaster ArmorLiner 30 is a premium reinforced geomembrane with a woven HDPE fabric that increases puncture and tear resistance. This membrane has an advanced coating, as well as superior hydrostatic resistance, while maintaining its flexibility. ArmorLiner 30 is perfect for potable water applications.

**Recommended Applications:** Large Exposed Reservoirs, Water Ski Lakes, Waste Water Containment, Secondary Containment

**Warranty:** 15 years (exposed); 20 years (buried)

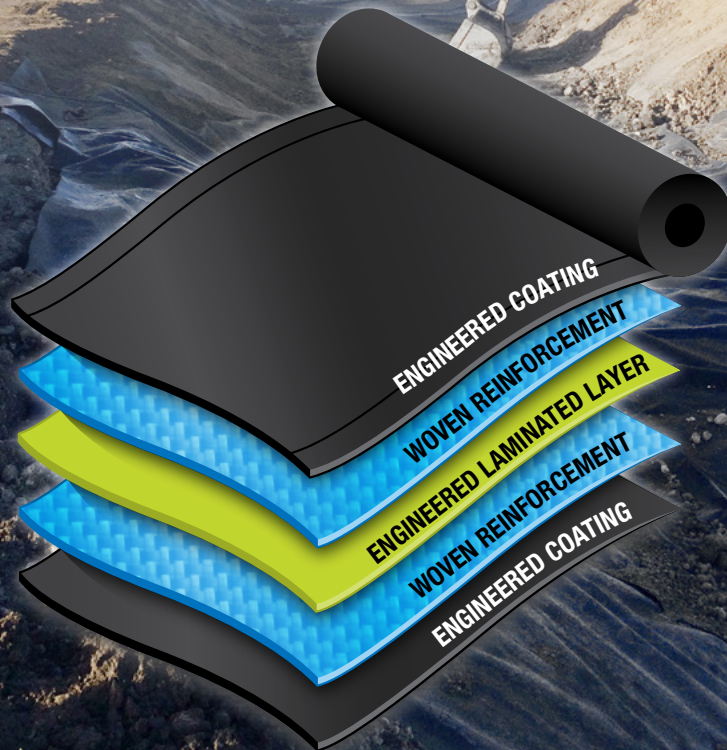


# Double Scrim Laminate

ArmorLiner 40L is our premium double scrim membrane that has one of the highest puncture resistance values in the industry. With excellent UV resistance, this product will survive long term, exposed applications.

**Recommended Applications:** Mining, Coal/ Ash Remediation, Large Reservoirs, Waste Water Containment, Secondary Containment

**Warranty:** 20 years (exposed); 25 years (buried)



## ArmorLiner 40L

Property	ASTM	Specification
Base Fabric		Black HDPE
Coating		LDPE
Weight <i>oz/sq yd (gsm)</i>	D5261	18.5 (627)
Thickness <i>mils (mm)</i>	D1777	40 (1.0) +/- 10%
Grab Tensile <i>lb (N)</i>	D7004	MD 680 (3019) / TD 680 (3019)
Tongue Tear - Large Scale <i>lb (N)</i>	D5884	MD 140 (622) / TD 135 (599)
Mullen Burst <i>psi (kPa)</i>	D751	1300 (8957)
Hydrostatic Resistance <i>psi (kPa)</i>	D751	685 (4720)
Hydraulic Conductivity <i>cm/s</i>	Calc. MVTR E96	$2.65 \times 10^{-12}$
Puncture Resistance <i>lb (N)</i>	D4833	350 (1554)
CBR Static Puncture <i>lb (N)</i>	D6241	2356 (10461)
Dimensional Stability %	D1204	MD -3.8 / TD -1.8
Low Temperature Flex	D2136	MD&TD: Pass @ -65°C (-85°F)
Accelerated UV Weathering* % Retained Strength	D7238	>90
Limited Warranty (Exposed) Years		20
Limited Warranty (Buried) Years		25

\*Q.U.V [A-340 Lamps]; 20 hrs UV @ 75°C; 4 hrs condensation @ 60°C



# ArmorLiner 45L

Property	ASTM	Specification
Base Fabric		Black HDPE
Coating		LDPE
Weight <i>oz/sq yd (gsm)</i>	D5261	23 (780)
Thickness <i>mils (mm)</i>	D1777	45 (1.12)
Grab Tensile <i>lb (N)</i>	D7004	MD 655 (2908) / TD 880 (3907)
Tongue Tear - Large Scale <i>lb (N)</i>	D5884	MD 105 (466) / TD 110 (488)
Mullen Burst <i>psi (kPa)</i>	D751	1300 (8957)
Hydrostatic Resistance <i>psi (kPa)</i>	D751	880 (6063)
Hydraulic Conductivity <i>cm/s</i>	Calc. MVTR E96	$2.29 \times 10^{-12}$
Puncture Resistance <i>lb (N)</i>	D4833	365 (1621)
CBR Static Puncture <i>lb (N)</i>	D6241	2265 (10057)
Dimensional Stability %	D1204	MD -3.1 / TD -1.5
Low Temperature Flex	D2136	MD&TD: Pass @ -65°C (-85°F)
Accelerated UV Weathering* % Retained Strength	D7238	>90
Limited Warranty (Exposed) Years		20
Limited Warranty (Buried) Years		25

\*Q.U.V [A-340 Lamps]; 20 hrs UV @ 75°C; 4 hrs condensation @ 60°C

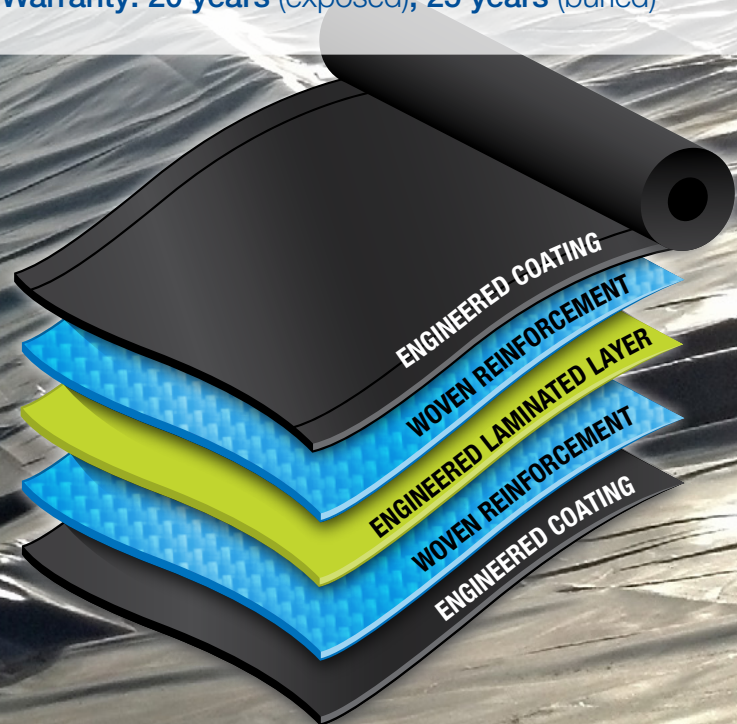


# Double Scrim Laminate

ArmorLiner 45L is our 45 mil double scrim membrane with extremely high puncture resistance and tensile strength, far surpassing the physical properties of other reinforced 45 mil polyethylene or polypropylene products. With the excellent hydrostatic resistance and superior UV resistance, you can count on the long-term performance even in demanding exposed applications.

**Recommended Applications:** Mining, Coal/Ash Remediation, Large Reservoirs, Waste Water Containment, Secondary Containment

**Warranty:** 20 years (exposed); 25 years (buried)



# Single Film Laminate

The ArmorLiner 30SFL (Single Film Laminate) is a 30 mil heavy duty membrane that offers superior puncture and hydrostatic resistance properties. ArmorLiner 30SFL is the proven choice for demanding geomembrane water containment applications. The exclusive ArmorLiner 30SFL is technologically designed to provide the characteristics that you demand from both an installation and performance standpoint.

**Recommended Applications:** Hydraulic Fracturing, Tank Liners, Water Reservoirs, Heavy Duty Containment Projects

**Warranty: 20 years** (exposed); **25 years** (buried)



## ArmorLiner 30SFL

Property	ASTM	Specification
Base Fabric		Black HDPE
Coating		LDPE
Weight <i>oz/sq yd (gsm)</i>	D5261	14.7 (498)
Thickness <i>mils (mm)</i>	D1777	30 (0.75)**
Grab Tensile <i>lb (N)</i>	D7004	MD 410 (1820) / TD 400 (1776)
Tongue Tear - Large Scale <i>lb (N)</i>	D5884	MD 79 (351) / TD 81 (360)
Mullen Burst <i>psi (kPa)</i>	D751	622 (4289)
Hydrostatic Resistance <i>psi (kPa)</i>	D751	635 (4375)
Hydraulic Conductivity <i>cm/s</i>	Calc. MVTR E96	$2.06 \times 10^{-12}$
Puncture Resistance <i>lb (N)</i>	D4833	195 (866)
CBR Static Puncture <i>lb (N)</i>	D6241	1272 (5658)
Dimensional Stability %	D1204	MD -2.9 / TD -1.0
Low Temperature Flex	D2136	MD&TD: Pass @ -65°C (-85°F)
Accelerated UV Weathering* % Retained Strength	D7238	>90
Limited Warranty (Exposed) Years		20
Limited Warranty (Buried) Years		25

\*Q.U.V [A-340 Lamps]; 20 hrs UV @ 75°C; 4 hrs condensation @ 60°C



**ARMOR  
LINER**

# NovaGrip 30

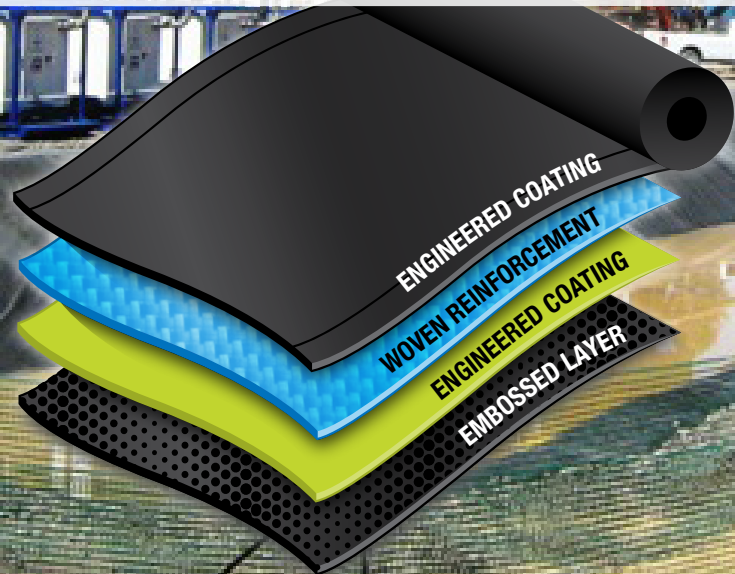
Property	ASTM	Specification
Base Fabric		Black HDPE
Coating		LDPE
Weight <i>oz/sq yd (gsm)</i>	D5261	14.5 (493) +/- 5%
Thickness <i>mils (mm)</i>	D1777	27 (0.68) +/- 10%
Asperity Height <i>mils (mm)</i>	D7466	>20 (>0.5)
Grab Tensile <i>lb (N)</i>	D7004	MD 325 (1443) / TD 270 (1199)
Tongue Tear - Large Scale <i>lb (N)</i>	D5884	MD 65 (289) / TD 70 (311)
Mullen Burst <i>psi (kPa)</i>	D751	560 (3858)
Hydrostatic Resistance <i>psi (kPa)</i>	D751	370 (2549)
Hydraulic Conductivity <i>cm/s</i>	Calc. MVTR E96	$2.65 \times 10^{-12}$
Puncture Resistance <i>lb (N)</i>	D4833	150 (666)
CBR Static Puncture <i>lb (N)</i>	D6241	985 (4379)
Dimensional Stability %	D1204	MD -2.8 / TD -1.6
Low Temperature Flex	D2136	MD&TD: Pass @ -65°C (-85°F)
Limited Warranty (Exposed) Years		10
Limited Warranty (Buried) Years		20

# Textured Geomembrane

NovaGrip 30 is a 30 mil geomembrane with an aggressive raised embossed pattern on one side of the membrane. This textured surface can be used to provide a slip resistant surface or to hold soil on a side slope. NovaGrip 30 is an effective safeguard against slips & falls on job-site locations. As always, our Geomembranes are resistant to a range of chemicals and hydrocarbons, helping our customers keep the environment safe from contaminants.

**Recommended Applications:** Oil & Gas Rig Sites, Soil Stabilization, Secondary Containment, Landfill Cap, Water Containment Pond

**Warranty:** 10 years (exposed); 20 years (buried)

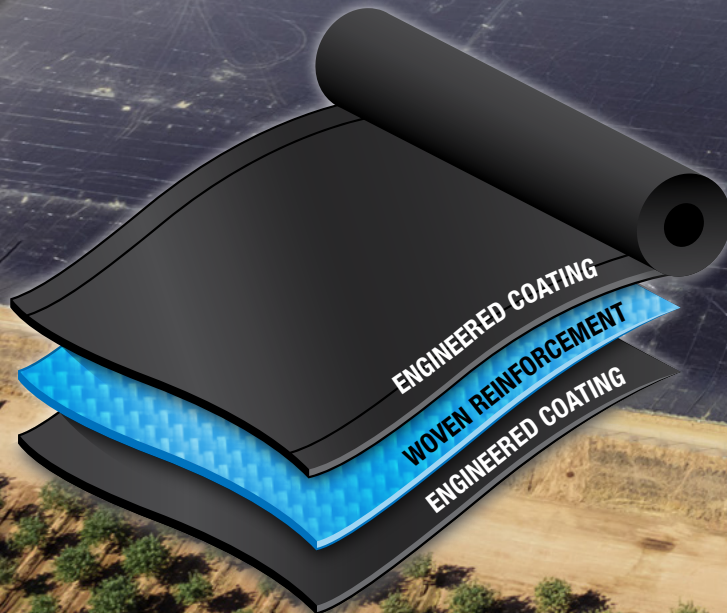


# Standard Grade Liner/Cover

NovaLiner 12 is our lightweight, but extremely strong liner/cover for temporary applications up to 5 years exposed. This 12 mil reinforced polyethylene material provides excellent protection against rain and UV exposure, protecting the covered products from the harsh environment.

**Recommended Applications:** Grain Covers, Temporary Landfill Covers, Short-term Liners

**Warranty:** 5 years (exposed); 10 years (buried)



# NovaLiner 12

Property	ASTM	Specification
Base Fabric		Black HDPE
Coating		LDPE
Weight <i>oz/sq yd (gsm)</i>	D5261	5.2 (176)
Thickness <i>mils (mm)</i>	D1777	12 (0.30) +/- 10%
Grab Tensile <i>lb (N)</i>	D7004	MD 180 (799) / TD 125 (555)
Tongue Tear - Large Scale <i>lb (N)</i>	D5884	MD 50 (222) / TD 50 (222)
Mullen Burst <i>psi (kPa)</i>	D751	275 (1895)
Hydrostatic Resistance <i>psi (kPa)</i>	D751	130 (896)
Hydraulic Conductivity <i>cm/s</i>	Calc. MVTR E96	$0.88 \times 10^{-12}$
Puncture Resistance <i>lb (N)</i>	D4833	76 (337)
CBR Static Puncture <i>lb (N)</i>	D6241	530 (2353)
Dimensional Stability %	D1204	MD -3.60 / TD -2.42
Low Temperature Flex	D2136	MD&TD: Pass @ -40°C (-40°F)
Accelerated UV Weathering* % Retained Strength	G154	>90
Limited Warranty (Exposed) Years		5
Limited Warranty (Buried) Years		10

\*Q.U.V [A-340 Lamps]; 8 hrs UV @ 60°C; 4 hrs condensation @ 50°C

# NovaLiner 16

Property	ASTM	Specification
Base Fabric		Black HDPE
Coating		LDPE
Weight <i>oz/sq yd (gsm)</i>	D5261	7.2 (244)
Thickness <i>mils (mm)</i>	D1777	16 (0.40) +/- 10%
Grab Tensile <i>lb (N)</i>	D7004	MD 210 (932) / TD 190 (844)
Tongue Tear - Large Scale <i>lb (N)</i>	D5884	MD 60 (266) / TD 60 (266)
Mullen Burst <i>psi (kPa)</i>	D751	375 (2584)
Hydrostatic Resistance <i>psi (kPa)</i>	D751	97 (668)
Hydraulic Conductivity <i>cm/s</i>	Calc. MVTR E96	$1.97 \times 10^{-12}$
Puncture Resistance <i>lb (N)</i>	D4833	113 (502)
CBR Static Puncture <i>lb (N)</i>	D6241	922 (4094)
Dimensional Stability %	D1204	MD -3.60 / TD -3.40
Low Temperature Flex	D2136	MD&TD: Pass @ -40°C (-40°F)
Accelerated UV Weathering* % Retained Strength	G154	>90
Limited Warranty (Exposed) Years		5
Limited Warranty (Buried) Years		10

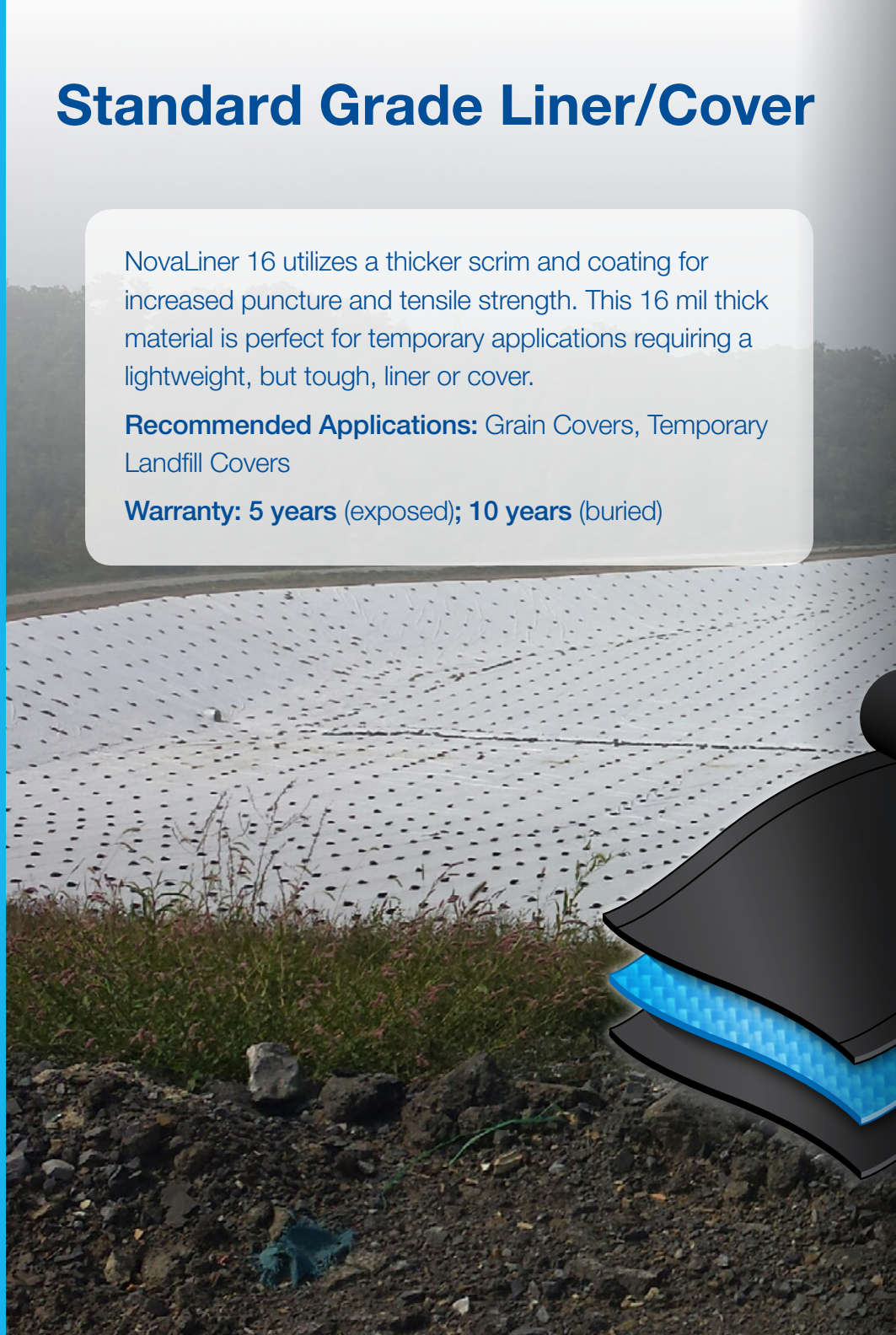
\*Q.U.V [A-340 Lamps]; 8 hrs UV @ 60°C; 4 hrs condensation @ 50°C

# Standard Grade Liner/Cover

NovaLiner 16 utilizes a thicker scrim and coating for increased puncture and tensile strength. This 16 mil thick material is perfect for temporary applications requiring a lightweight, but tough, liner or cover.

**Recommended Applications:** Grain Covers, Temporary Landfill Covers

**Warranty:** 5 years (exposed); 10 years (buried)





# Standard Grade Liner/Cover

NovaLiner 20 is our medium weight liner/cover that incorporates our special weave pattern to enhance flatness and tear properties. The special coating is designed to provide toughness and abrasion resistance while maintaining its excellent UV protection.

**Recommended Applications:** Interim Landfill Covers, Containment Liners

**Warranty: 5 years** (exposed); **10 years** (buried)

## NovaLiner 20

Property	ASTM	Specification
Base Fabric		Black HDPE
Coating		LDPE
Weight <i>oz/sq yd (gsm)</i>	D5261	9 (305)
Thickness <i>mils (mm)</i>	D1777	20 (0.50) +/- 10%
Grab Tensile <i>lb (N)</i>	D7004	MD 250 (1110) / TD 340 (1510)
Tongue Tear - Large Scale <i>lb (N)</i>	D5884	MD 75 (333) / TD 75 (333)
Mullen Burst <i>psi (kPa)</i>	D751	550 (3790)
Hydrostatic Resistance <i>psi (kPa)</i>	D751	139 (958)
Hydraulic Conductivity <i>cm/s</i>	Calc. MVTR E96	$1.97 \times 10^{-12}$
Puncture Resistance <i>lb (N)</i>	D4833	140 (622)
CBR Static Puncture <i>lb (N)</i>	D6241	973 (4320)
Dimensional Stability %	D1204	MD -4.30 / TD -1.80
Low Temperature Flex	D2136	MD&TD: Pass @ -65°C (-85°F)
Accelerated UV Weathering* <i>% Retained Strength</i>	G154	>90
Limited Warranty (Exposed) Years		5
Limited Warranty (Buried) Years		10

\*Q.U.V [A-340 Lamps]; 8 hrs UV @ 60°C; 4 hrs condensation @ 50°C

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# NovaLiner 24

# Standard Grade Liner/Cover

Property	ASTM	Specification
Base Fabric		Black HDPE
Coating		LDPE
Weight <i>oz/sq yd (gsm)</i>	D5261	9.1 (309)
Thickness <i>mils (mm)</i>	D1777	24 (0.60) +/- 10%
Grab Tensile <i>lb (N)</i>	D7004	MD 294 (10305) / TD 242 (1074)
Tongue Tear - Large Scale <i>lb (N)</i>	D5884	MD 90 (400) / TD 92 (408)
Mullen Burst <i>psi (kPa)</i>	D751	530 (3652)
Hydrostatic Resistance <i>psi (kPa)</i>	D751	262 (1805)
Hydraulic Conductivity <i>cm/s</i>	Calc. MVTR E96	$1.77 \times 10^{-12}$
Puncture Resistance <i>lb (N)</i>	D4833	150 (666)
CBR Static Puncture <i>lb (N)</i>	D6241	993 (4409)
Dimensional Stability %	D1204	MD -3.60 / TD -1.00
Low Temperature Flex	D2136	MD&TD: Pass @ -65°C (-85°F)
Accelerated UV Weathering* <i>% Retained Strength</i>	D7238	>90
Limited Warranty (Exposed) <i>Years</i>		5
Limited Warranty (Buried) <i>Years</i>		10

\*Q.U.V [A-340 Lamps]; 20 hrs UV @ 75°C; 4 hrs condensation @ 60°C

NovaLiner 24 is our 24 mil fabric that utilizes a special scrim to enhance thickness, flatness, and tear properties. The coating recipe is designed to improve toughness and abrasion resistance. This product is intended for exposed applications up to 5 years.

**Recommended Applications:** Interim Landfill Covers, Containment Liners

**Warranty:** 5 years (exposed); 10 years (buried)



# Standard Grade Liner/Cover

NovaLiner 30 is our heaviest “Standard Grade” material utilizing a heavy-duty scrim that increases puncture strength properties. The extra heavy coating provides ease of field welding and maximizes Hydrostatic Resistance for demanding water containment applications.

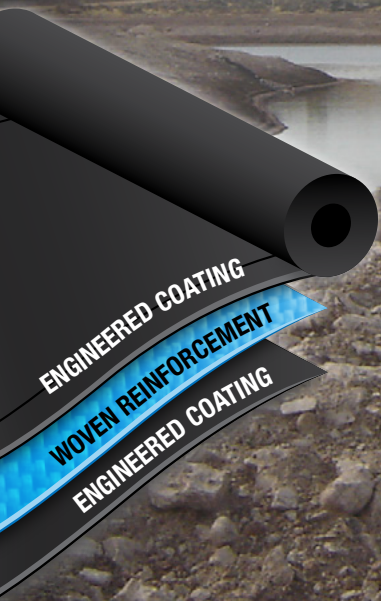
**Recommended Applications:** Water Reservoirs, Canals, Oil & Gas Frac Pits

**Warranty:** 10 years (exposed); 20 years (buried)

## NovaLiner 30

Property	ASTM	Specification
Base Fabric		Black HDPE
Coating		LDPE
Weight <i>oz/sq yd (gsm)</i>	D5261	12.2 (414)
Thickness <i>mils (mm)</i>	D1777	30 (0.75) +/- 10%
Grab Tensile <i>lb (N)</i>	D7004	MD 282 (1252) / TD 320 (1421)
Tongue Tear - Large Scale <i>lb (N)</i>	D5884	MD 70 (311) / TD 85 (377)
Mullen Burst <i>psi (kPa)</i>	D751	585 (4031)
Hydrostatic Resistance <i>psi (kPa)</i>	D751	423 (2914)
Hydraulic Conductivity <i>cm/s</i>	Calc. MVTR E96	$1.87 \times 10^{-12}$
Puncture Resistance <i>lb (N)</i>	D4833	165 (733)
CBR Static Puncture <i>lb (N)</i>	D6241	1025 (4551)
Dimensional Stability %	D1204	MD -4.40 / TD -1.80
Low Temperature Flex	D2136	MD&TD: Pass @ -65°C (-85°F)
Accelerated UV Weathering* % Retained Strength	D7238	>90
Limited Warranty (Exposed) Years		10
Limited Warranty (Buried) Years		20

\*Q.U.V [A-340 Lamps]; 20 hrs UV @ 75°C; 4 hrs condensation @ 60°C



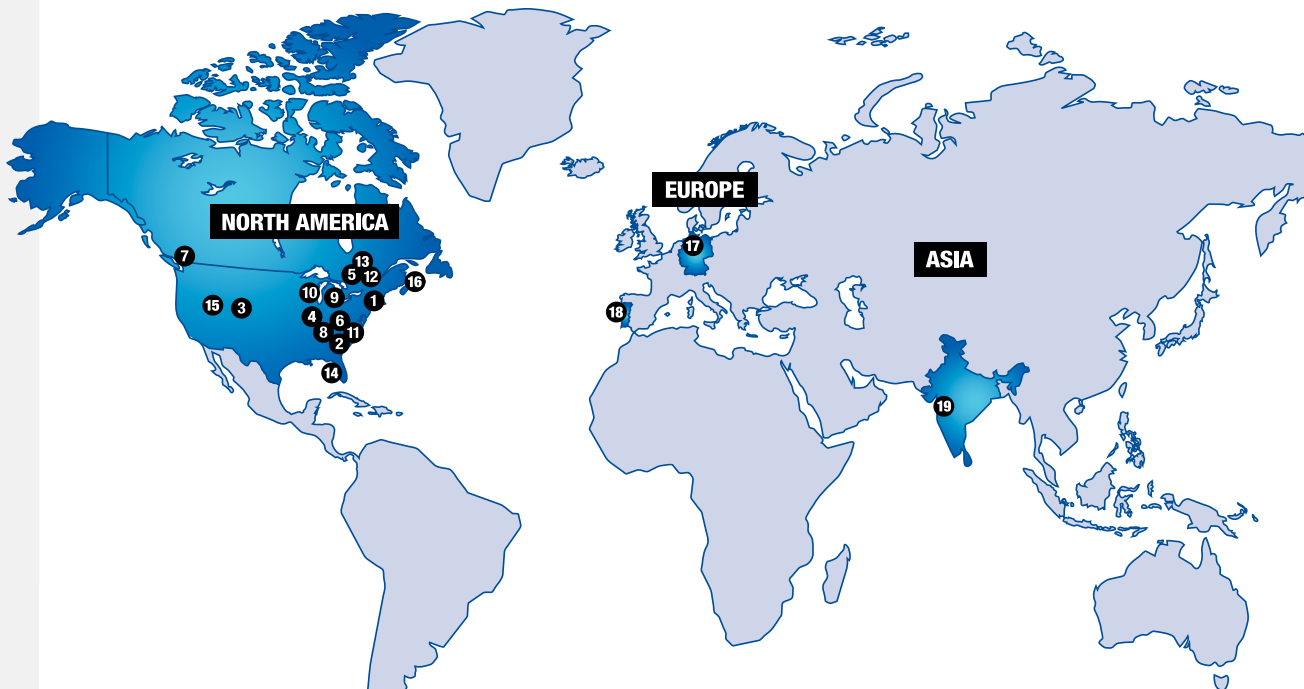
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## CORPORATE PROFILE

Intertape Polymer Group® Inc. (IPG®) is a recognized leader in the development, manufacture and sale of a variety of paper and film based pressure-sensitive and water-activated tapes, polyethylene and specialized polyolefin films, woven coated fabrics and complementary packaging systems for industrial and retail use. Headquartered in Montreal, Quebec and Sarasota, Florida, the Company employs approximately 2,500 employees with operations in 19 locations, including 13 manufacturing facilities in North America and one in each of Europe and Asia.



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- 1. Ansonia, CT ■
- 2. Blythewood, SC ●
- 3. Brighton, CO ●
- 4. Carbondale, IL ●
- 5. Cornwall, ON ●
- 6. Danville, VA ●▲
- 7. Delta, BC ●
- 8. Johnson City, TN ●
- 9. Marysville, MI ●

NORTH AMERICA

- 10. Menasha, WI ●
- 11. Midland, NC ●
- 12. Montreal, QC ★
- 13. Montreal, QC ●
- 14. Sarasota, FL ☆
- 15. Tremonton, UT ●
- 16. Truro, NS ●

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EUROPE

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