

INNOVATION ON FIRE

Textiles for Extreme Heat Applications

Protective Clothing • Foundries • Glass Making
Paper Making • Oil Refining • Transportation
Mining • Chemical Manufacturing
Power Generation • Pyrotechnics



INNOVATOR AND PROVEN TEXTILE LEADER

Auburn Manufacturing, Inc. (AMI) develops and produces a wide range of high-performance, high temperature fabrics designed for **high heat** conditions to protect people, processes and equipment from the harmful effects of heat, molten splash and other heat related risks.

For over 30 years AMI has been a custom solutions provider. Advanced weaving technologies along with expertise in fibers, yarns, weaves and specialty coatings has made us the 'go to' extreme textile provider for a wide variety of high heat applications in nearly every industry.

Expanded Product Line

AMI's continuous investment in coating research and heat protection enhancements has resulted in a dramatically expanded line of safety fabrics.

- New fiber blends, including PBI, aramids, and fiberglass
- Wide array of fabric weights, thicknesses and widths
- New coatings to boost performance
- Many new modular flexible heat barriers using composite construction

AMI works with suppliers and manufacturers worldwide to endure the best possible product performance, design and functionality.

Safety Apparel

We are committed to the safety apparel manufacturers around the globe to provide heat resistant textiles that are

- Easy to fabricate
- Durable
- Comfortable
- Consistent in Quality
- Cost Competitive



End Users with Heat Intensive Processes

Industries such as paper making, transportation, mining, glass making, power generation, chemical manufacturing, pyrotechnic entertainment, and fire containment all have extreme temperature processes where protecting people and equipment is critical to their business. AMI's Innovation team is continually working on solutions that provide extreme protection, and are durable, comfortable, cost effective and can be used in both indoor and outdoor environments.



AMI's focus on innovation has led them to search, test and produce durable, resistant coatings that can be applied to their products to make them water, oil and grease resistant yet do not compromise comfort nor temperature and flame resistance.



The ability to "see through" a flexible heat barrier is an important requirement in both the data protection and refining industries. AMI put their experts to work and developed AMI-TUF® TR, a fiberglass fabric coated with a high quality, unaltered, specially formulated silicone rubber compound. It offers see-through 50% light transparency, is flexible, cleanable, fire resistant, oil and water resistant, and has no added halogens.



A close-up view of how well our advanced coatings protect AMI fabrics from moisture and various oil-based substances. Left to Right: Brake Fluid • Water • Motor Oil • Transmission Fluid • Antifreeze

SAFETY FABRICS



AMI's FL1700
Aramid fiber and fiberglass yarn
composite

ARAMID-BASED FABRICS

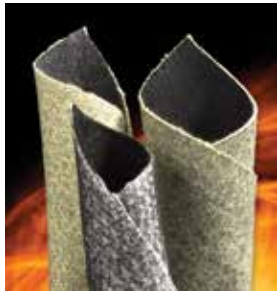
AMI-FLEX® (FL) Rated to 600°F (320°C)

Advanced blends of aramids, glass and PBI

AMI's corespun yarn-making capabilities result in consistently higher performing fabrics. Available in a wide range of weights and thicknesses to meet an ever-growing number of heat shielding needs. Available with DRX and RR coatings to aid in cutting and sewing operations.

Product Code	Weight/yd ²	Thickness	Width
*FL1200	12 oz	.056"	40", 60"
*FL1700	17 oz	.065"	50"
**FL2200	22 oz	.080"	40", 60"
FL3300	33 oz	.102"	50"
FLPBI2200	22 oz	.080"	40", 60"

(*) Available in Aluminized (AFL) — 300°F/150°C temperature resistance reflects limitation of adhesive for aluminization
(**) Also available in RR Coating



Aramid fiberglass and partially
carbonized non-woven acrylic

CARBONIZED COMPOSITE FABRICS

CARBO-GLAS® (PGL) and CARBO-FLEX® (FLP) Rated to 500°F (260°C)

Composite of aramid fiberglass and partially carbonized non-woven acrylic

CARBO-FLEX and CARBO GLASS are innovative composites that combine the strength and heat resistance of AMI-FLEX fabrics with the excellent direct heat resistance of preox (partially carbonized acrylic). Fabrics can be carbonized on either or both sides. The result is a fabric that exhibits excellent heat dissipating capabilities. Heat travels across the carbonized side of the fabric not through it. The fabrics deliver performance without adding weight or stiffness. The result is substantially better heat protection for people, plant or equipment.

Product Code	Weight/yd ²	Thickness	Width
**FLPN1500	15 oz	.100"	40"
FLP3000	30 oz	.145"	40", 60"
PGL1400-1	14 oz	.075"	60"
*PGL2000	20 oz	.150"	60"

(*) Tested for Thermal Conductivity (K).

(**) Tested for Thermal Protective Performance (TPP) with Stoll Curve and Thermal Conductivity (K).



Neoprene rubber coating adds
durability

NEOPRENE COATED FABRICS

GOLDENGLAS® (GLN) Rated to 225°F (107°C)

Neoprene Coated AMI-GLAS

A neoprene rubber coating is applied to one side of AMI-GLAS providing added durability at minimal cost. Use as non-critical glove components, hand pads or welding curtains. While normally provided in a golden color, other colors are also available.

Product Code	Weight/yd ²	Thickness	Width
GLN2025	21 oz	.030"	40", 60", 72"
GLN2401	27 oz	.055"	40", 60", 72"



Aluminized AMI-FLEX®, CARBO-FLEX® and AMI-SIL® are ideal for safety apparel.

ALUMINIZED LAMINATED FABRICS

AMI-FLEX® (AFL)	Rated to 300°F (150°C)
CARBO-FLEX® (AFLPN)	Rated to 300°F (150°C)
AMI-SIL® (AAS)	Rated to 300°F (150°C)
AMI-GLAS® (AMGL)	Rated to 300°F (150°C)

Aluminized polyester film laminated to extreme temperature fabrics

AMI-FLEX and CARBO-FLEX are ideal for safety clothing items. Aluminized AMI-SIL fabrics are as attractive as they are effective against extreme radiant heat. For mid-range temperature applications or for applications when radiant heat is encountered aluminized AMI-GLAS is a good choice.

Product Code	Weight/yd ²	Thickness	Width
AFL1200	14 oz	.038"	40"
*AFL1700	19 oz	.052"	40", 60"
**AFLPN1500	17 oz	.070"	40"
AAS1800F	22 oz	.035"	36"
AAS2400	28 oz	.040"	36"
AAS3600	40 oz	.055"	36"
AMGL1300	17 oz	.018"	54"
AMGL2025	19 oz	.030"	40"
AMGL2401	26 oz	.055"	40"

(*) Tested for Molten Metal Splash Iron

(**) Tested for Thermal Protective Performance (TPP) with Stall Curve and Thermal Conductivity (K).



Foil lamination stays intact even after direct heat exposure

ALUMINUM FOIL LAMINATED FABRICS

AMI-GLAS® (AGL)	Rated to 300°F (150°C)
-----------------	------------------------

Aluminum foil lamination that stays in place

Unlike a metalized film, this lamination is done with a .001" aluminum foil for overall temperature resistance. The foil is designed to stay intact even after exposure to direct heat. A ravel-resistant coating can be applied to one side to further enhance die-cutting operations.

Product Code	Weight/yd ²	Thickness	Width
AGL2025-9383	20.5 oz	.031"	48", 60"
AGL2401	27.5 oz	.056"	40"
AGL4000	43.5 oz	.091"	40"

AMI PRODUCT LINES

Aramid-Based Fabrics | PBI/Aramid Blends

Carbonized Composite Fabrics | Silica Fabrics

"EB" Extreme Barrier Composites | Aluminized Fabrics | Coated Fabrics



Silicone can be applied to either one or both sides of AMI-TUF® for added moisture and oil resistance.

SILICONE COATED FABRICS

AMI-TUF® (SGL)	Rated to 500°F (260°C)
AMI-TUF® PLUS (SGLP)	Rated to 500°F (260°C)
AMI-SIL® (SAS)	Rated to 500°F (260°C)
VEXTRA® (SGLV)	Rated to 500°F (260°C)

Silicone coating provides additional moisture and oil resistance

A smooth coating of silicone is applied to either one or both sides of various AMI fabrics like AMI-GLAS, VEXTRA and AMI-SIL. The silicone provides moisture and oil resistance, making these fabrics ideal for outdoor work places like refineries and shipyards. Available in over 10 colors, AMI-TUF fabrics are used for heat containment curtains, fire resistant covers, and as a component of insulation pads to protect workers from heat generated by operations. AMI's new SGLP product is black with added minerals to boost performance as a welding fabric. Its flat black finish is ideal for laser curtains.

Product Code	Weight/yd ²	Thickness	Width
SGL1400	14 oz	.013"	38", 60"
SGL1700	17 oz	.016"	60"
SGL3200	32 oz	.035"	37", 60"
SAS2400-1	29 oz	.047"	36", 60"
SGLV6000-1	75 oz	.115"	40", 60"
SGLP3100	31 oz	.037"	37", 60"



Vermiculite coated products are engineered to withstand very hostile environments

VERMICULITE COATED FIBERGLASS

VEXTRA® (GLV)	Rated to 1000°F (540°C)
VEXTRA® (FLVB)	Rated to 600°F (320°C)

Combat high temperature with superior vermiculite armor over fiberglass fabric

A golden vermiculite dispersion is applied to various AMI fabrics, creating an armor against direct heat. The heat travels across VEXTRA coated fabrics, enabling them to remain stable at up to 50% higher temperatures than the uncoated counterparts. VEXTRA fabrics are tough enough to withstand very hostile work environments. The VEXTRA treatment is available on AMI-GLAS (GLV) and AMI-FLEX (FLVB) fabrics (AMI-FLEX version is also pigmented black). "SGLV" is a VEXTRA fabric made with fiberglass substrate and then coated on one side with a silicone rubber, for added durability during activities that generate heavy molten metal splash.

Product Code	Weight/yd ²	Thickness	Width
GLV2025-TP	19.3 oz	.030"	40", 60"
GLV3500 TP	38.5 oz	.080"	40", 60"
GLV6000	62 oz	.125"	40", 60"
GLV2401	24 oz	.055"	40", 60", 72"
GLV3001	31 oz	.065"	40", 60", 72"
FLBV1700-TP	20 oz	.065"	40", 60"



ROPES, TAPES & TUBING FOR PYROTECHNIC INDUSTRY

AMI-FLEX® FABRICS

AMI ropes, tapes, and tubing cover pipes, torch handles and other fire entertainment items to protect personnel.

ROPES 600°F to 1800°F (320°C to 1000°C)

Product Code	Yield	Diameter	F/Case
FLR125	320 ft/lb	1/8"	4000
FLR188	256 ft/lb	3/16"	3200
FLR250	80 ft/lb	1/4"	2000
FLR375	64 ft/lb	3/8"	1600
FLR500	33.6 ft/lb	1/2"	840

TAPES 600°F (320°C)

Product Code	Thickness	Width	Standard Put-ups
FL16	.060"	1" - 6"	100 ft rolls
FL08	.125"	1" - 5"	100 ft rolls
FL04	.250"	1" - 4"	50 ft rolls

TUBING 600°F to 1000°F (320°C to 540°C)

Product Code	Diameter
FLT375	3/8" ID
FLT750	3/4" ID
FLT1000	1" ID
FLT1500	1 1/2" ID

COATINGS & TREATMENTS FOR AMI EXTREME TEMPERATURE FABRICS

DRX For the highest level of ravel resistance while maintaining the fabric's flexibility, AMI's DRX color coating is applied to the backside of AMI-FLEX® fabrics and helps to ease cutting and sewing operations. The finish is sacrificial at elevated temperatures and may burn off without affecting the base fabric's temperature resistance. It is recommended that the coated side of the fabric be used on the inside of the fabricated article. Coating is color-coded on one side only.

RR Ravel-resistant coating available on AMI-FLEX® and AMI-GLAS® fabrics. This proprietary treatment offers moderate ravel-resistance and aids in cutting, sewing and fabricating applications. The finish is sacrificial at elevated temperatures and may burn off without affecting the base fabric's temperature resistance. It is a non-colored coating and generally one side is saturated with the treatment.

AR Abrasion Resistant Finish is available on the inherently delicate AMI-SIL fabrics and is orange in color. The finished fabrics are used in applications such as insulative or welding safety pads

LCF Low Coefficient of Friction Treatment is a specially formulated silicone rubber compound that is applied to fiberglass fabrics and provides a slick and easy-to-sew surface.

AMI OFFERS A FULL LINE OF ROPES, TAPES, TUBING, & THREADS FOR SAFETY APPLICATIONS

AMI-FLEX® TAPES: Available in thicknesses from .060" to .250", and in widths up to 7". Using the same yarns as our AMI-FLEX® fabrics, these tapes can be used as a cuff material, a hem reinforcement in pads and blankets, and as various roll cover materials where durability and heat resistance are of the utmost importance.

AMI-TUF® TAPES: The same coating as our AMI-TUF® fabrics is also available on our AMI-GLAS® tapes. Finally, an economical and aesthetically pleasing alternative to the messy and laborious process of cutting and sewing fabrics into straps for insulation pads and blankets. Available in colors to coordinate or contrast with other fabrics.

DRAWSTRING: AMI-FLEX® is available in ropes starting as small as .125" in diameter. Ideal for use as drawstring for various pad and blanket applications. Made from the same durable, heat-resistant yards as AMI-FLEX fabrics.

SEWING THREADS: PTFE-coated glass, aramid and metalized sewing threads are designed for sewing AMI fabrics.



AMI-GUARD® GLOVES & MITTENS



Extreme Heat Hand Protection		Product Code
Glove	AMI-GUARD GL	GL260R
<i>Glove with full fiberglass palm patch quilted between 2 layers of AMI-GLAS</i>		
Mitten	AMI-GUARD GL	GL275R
<i>AMI-GLAS Mitten with heat resistant patch for added cut resistance</i>		
Mitten	AMI-GUARD GL	GL278R
<i>AMI-GLAS Mitten with extra patch for extra protection</i>		
Overmitt	AMI-GUARD GL	GL279R
<i>Reversible overmitt made with unlined AMI-GLAS</i>		
Mitten	AMI-GUARD GL	GL250R
<i>AMI-GLAS all-purpose mitten with reversible option available</i>		
Glove	AMI-GUARD GL	GL225
<i>AMI-GLAS glove, reinforced with heat resistant leather</i>		
Glove	AMI-GUARD ACKGL	ACKGL210
<i>Glove with aluminized carbon aramid back, AMI-GLAS palm</i>		
Glove	AMI-GUARD GL	GL13010
<i>Glove with cuff; with double palm for added protection</i>		
Glove	AMI-GUARD GL	GL210
<i>Glove with cuff; made of AMI-GLAS</i>		
Glove	AMI-GUARD ACK	ACK210
<i>Glove made of aluminized carbon aramid for radiant heat protection</i>		



AMI's Extreme Barrier Composites are a new addition to the AMI-TUF® family. These extreme temperature flexible barriers are constructed using a specially formulated coating that delivers increased performance over traditional silicone coated glass fabrics in hot work environments. AMI's EB composite is offered in single layer form or as a multi-layer blanket for extreme hot work environments.



AMI's tapes, tubing and ropes are made from our aramid/glass AMI-FLEX® yarns and can be found in the most extreme applications such as to wrap torches, swords and as wicks for fire props found in the pyrotechnic and fire entertainment industry.



AMI fabrics are used as extreme-heat thermal barriers in products used in critical applications like mining and firefighting.

