

**ALPHA
ASSOCIATES,
INC.**

ALPHAGLAS®

**PTFE COATED
FIBERGLASS
FABRICS,
TAPES
AND BELTS**

**ALPHAGLAS®
FABRICS,
TAPES
AND BELTS**

**ALPHAGLAS®
FABRICS**

BENEFITS

APPLICATIONS

**PHYSICAL
PROPERTIES**

ALPHAGLAS® combines PTFE coatings with a woven fiberglass substrate to produce fabrics, tapes and belts with excellent release surfaces for a wide variety of materials handling applications.

ALPHAGLAS PTFE coatings provide a barrier that resists most chemicals and solvents. The addition of fiberglass improves tensile strength and adds resistance to cut through and abrasion. And, because PTFE fluorocarbon resins have the lowest coefficient of friction and non-stick (release) of any known solid material, essentially all materials will slip and glide easily without external lubrication.

ALPHAGLAS PTFE coatings are non-toxic, odorless and tasteless. They have been approved by the Food and Drug Administration for use in food processing, packaging and handling. ALPHAGLAS fabrics, tapes and belts comply with the requirements of FDA regulation 21 CFR177.1550.

ALPHAGLAS fabrics exhibit excellent thermal, chemical, mechanical and electrical properties:

- Temperature range of -415°F to +600°F (-240°C to +316°C)
- Superior chemical resistance
- Excellent break and tear strength
- Exceptional dielectric properties
- High tensile strength
- Cold flow resistance under pressure

Designed to operate in demanding temperature and chemical environments, ALPHAGLAS fabrics are ideally suited for a broad range of applications:

- Release sheets
- Packaging and heat sealing
- Aircraft/Aerospace bonding shops
- Thermal insulation for high temperature gaskets and seals used in harsh chemical environments
- Conveyor belts



PHYSICAL PROPERTIES OF FABRICS	ECONOMY GRADE			MECHANICAL GRADE			
	603	605	610	703	705	706	710
Approximate Tear Strength Warp & Fill: Elmendorf g.							
Thickness Nominal (in.)	.003	.005	.010	.003	.005	.006	.010
Finished Weight (lbs./sq.yd.)	.18	.37	.69	.20	.40	.48	.78
Breaking Strength (lbs./in.)	70	120	200	70	120	120	200
Operating Temperatures	All Products — From -415°F (-240°C) to +600°F (+316°C)						
Dielectric Strength (volts/mil)	-	-	-	-	-	-	-

Note: All properties are typical and should not be used for writing specifications.

ALPHAGLAS® BELTS are available in both non-porous and porous grades with a variety of mechanical or endless splices.

The woven glass substrate of ALPHAGLAS belts offers strength and dimensional stability. Belts can be furnished slip resistant on one or both sides for greater traction.

ALPHAGLAS non-porous belts exhibit excellent thermal, chemical, mechanical and electrical properties:

- Excellent release characteristics
- Temperature range of -415°F to +600°F (-240°C to +316°C)
- Low friction surface
- Superior chemical resistance
- Excellent break and tear strength
- Exceptional dielectric properties
- High tensile strength
- Resists cold flow under pressure

ALPHAGLAS porous belts are used in conveying, processing, and handling of materials under conditions that require passage of air, gases, or liquids directly through the fabric. They are manufactured with an open area of 70% resulting in a high level of air flow which increases the rate of drying and reduces power consumption.

Premium Grade — Extra Heavy Coating for a Smoother Surface

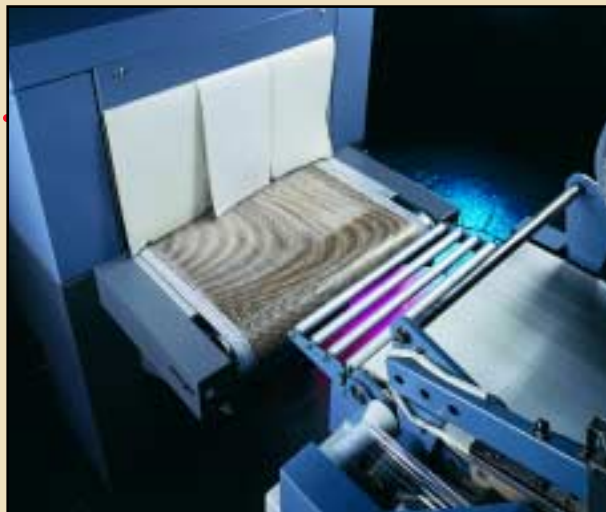
ALPHAGLAS Premium-Grade belts are used in applications where fabric weave impression is undesirable, or where sticky and gummy materials are being conveyed.

Standard Grade

ALPHAGLAS Standard-Grade belts are the most common because of the combination of high performance and moderate price.

Lesser Grades Available

Please contact customer service.



- Packaging
- Food processing
- Fusing and laminating plastic films
- Curing and drying screen printing inks
- Conveying

ALPHAGLAS® BELTS

NON-POROUS BELTS

POROUS BELTS

GRADES

APPLICATIONS

ALPHAGLAS® FABRIC GRADES

Designed for a wide range of applications, ALPHAGLAS® fabrics are available in different grades to match specific performance requirements.

Economy Grade — Light PTFE Coating

ALPHAGLAS Economy-Grade fabrics are designed for large volume applications which require a combination of cost-efficiency and high performance. Typical applications include:

- Leaders for processing paper, plastics, metallic foils and cloth
- Abrasive wheel manufacturing
- Separator sheets for processing uncured rubber

Mechanical Grade — Medium PTFE Coating

ALPHAGLAS Mechanical-Grade fabrics have the increased surface texture required for a variety of mechanical low-load applications. Typical applications include:

- Bottle washers and paint spraying curtains
- Food packaging
- Acid protection

Standard Grade — Heavy PTFE Coating

ALPHAGLAS Standard-Grade fabrics have a smooth surface and superb non-stick properties for optimum performance. Typical applications include:

- Release sheets on heat-sealing machines and laminate presses
- Non-stick surfaces for paints, adhesives and food products
- Gaskets, seals and bearings for chemicals, oils and gases
- Thermal insulation for high-temperature and chemical-resistant applications
- Covers for hot plates, platens, chutes, hoppers, troughs and rolls

Premium Grade — Extra-Heavy PTFE Coating

ALPHAGLAS Premium-Grade fabrics deliver a super-smooth surface that is ideal for a variety of advanced applications, including:

- Release sheets for cooking and baking applications
- Specialized heat sealing
- Laminate separator sheets
- Demanding, non-stick applications

Special Treatments

- Crease/tear resistant coatings
- Semi-conductive fabric reduces static
- Bondable surface treatment

Contact our customer service department for details.

STANDARD GRADE				PREMIUM GRADE				HIGH TEAR	
803	805	806	810	903	905	906	910	805T	810T
				N/A	N/A	N/A	N/A	2700 x 2000	7500 x 6500
.003	.005	.006	.010	.003	.005	.006	.010	.005	.010
.25	.45	.54	.90	.27	.50	.57	.98	.45	.850
70	120	120	200	70	120	120	200	120	200
All Products —				From -415°F (-240°C) to +600°F (+316°C)					
600	600	600	500	800	800	800	750	N/A	N/A



ALPHAGLAS® TAPES

ALPHAGLAS® TAPES are manufactured from fiberglass cloth impregnated with PTFE and feature a silicone pressure-sensitive adhesive. Pressure-sensitive adhesives stick instantly and have excellent bond strength, yet can be removed easily. Silicone adhesives have the broadest temperature range and can be applied to surfaces at very low temperatures.

Designed to operate in demanding environments, ALPHAGLAS tapes have excellent electrical, mechanical, thermal and chemical properties, making them ideally suited for a wide variety of industries, including packaging, aerospace and electronics.

PHYSICAL PROPERTIES

PHYSICAL PROPERTIES OF TAPES	A8305	A8507	A8608	A8012
Thickness, Nominal with Adhesive (inches)	.005	.007	.008	.012
Adhesive Type	S	S	S	S
Backing Thickness (inches)	.003	.005	.006	.010
Adhesion to Steel (oz./in. width)	30	35	40	45
Operating Temperatures	(All Tapes) From -100°F to +500°F (-75°C to +260°C)			
Breaking Strength (lb./in. width)	70	120	120	200
Elongation (%)	<5	<5	<5	<5
Dielectric Strength (volts/total)	4,000	4,500	6,000	7,000

S = silicone

BENEFITS

ALPHAGLAS tapes exhibit excellent thermal, chemical, mechanical and electrical properties:

- Smooth, low friction, non-stick surface
- Temperature range of -100°F to +500°F (-75°C to +260°C)
- Superior chemical resistance
- Excellent dielectric properties
- High tensile strength



APPLICATIONS

- Release surfaces
- Packaging and heat sealing
- Heat sealing surface covers (L-bar, bag, impulse equipment)
- Aircraft/aerospace bonding shops (mold release)
- Thermal insulation for high temperatures
- Guide rails and chute linings
- Non-stick roll covering





**ALPHA
ASSOCIATES,
INC.**

AVAILABILITY

Alpha Associates ...

Alpha Associates was founded in 1968 as a manufacturer of specialty materials for the U.S. space program. Since then, advancing technologies have led to the development of thermal and industrial fabrics, tapes and belts designed specifically for marine, aerospace, automotive and commercial applications.

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Fabrics

ALPHAGLAS® fabrics are available from stock in 38-inch (36" usable) widths in 18- and 36-yard rolls. Larger widths are available in some fabrics and are quoted on request. Fabrics can be treated to provide a cementable surface on one or both sides.

In addition to the standard stock products and grades outlined in this brochure, different thicknesses, PTFE weights per sq. yd. and fabric weaves are available. Please contact our customer service department with your requirements.

Tapes

ALPHAGLAS tapes are available in 36-yard rolls in widths of 1/4 inch and above.

Belts

ALPHAGLAS belts are available in widths up to 80 inches.

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