

GENTEX[®]

DUAL MIRROR[®] ALUMINIZED FABRICS



Protection You Can Count On. Value You Can't Beat.

Over 100 Years of Innovation

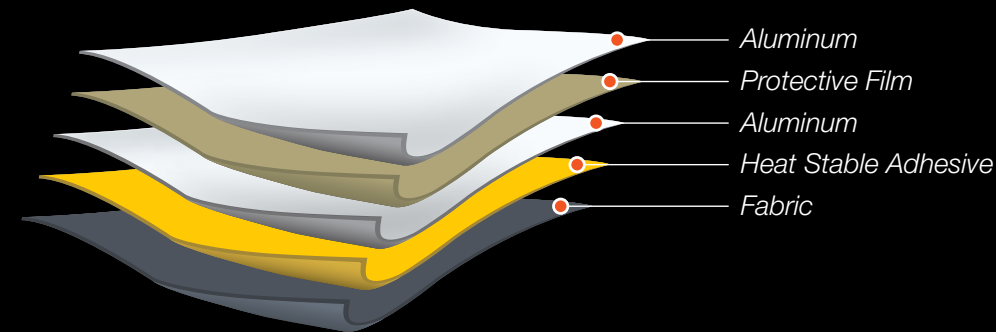
Leveraging its roots as a silk manufacturer in the early 1900's, Gentex pioneered the technology of combining metals with fabrics in the 1950's for U.S. military researchers probing the upper atmosphere. Today, Gentex is the global leader in high-performance aluminized fabrics.

Proven Proprietary Technology

Gentex's proprietary Dual Mirror® system incorporates a proven five-layer structure that ensures a high level of abrasion resistance, so the fabric remains highly reflective.

The five layers consist of an outer layer of aluminum, protective film, a second layer of aluminum, heat stable adhesive and the base fabric. These layers are all combined to form a single homogeneous fabric.

A metalized, aluminized surface has proven to be the most effective flexible barrier for stopping radiant (infrared) heat. The mirror-like surface reflects radiant heat away, rather than allowing it to be absorbed through the fabric.



Gentex's proprietary Dual Mirror system incorporates a proven five-layer structure that ensures a high level of abrasion resistance, so the fabric remains highly reflective.

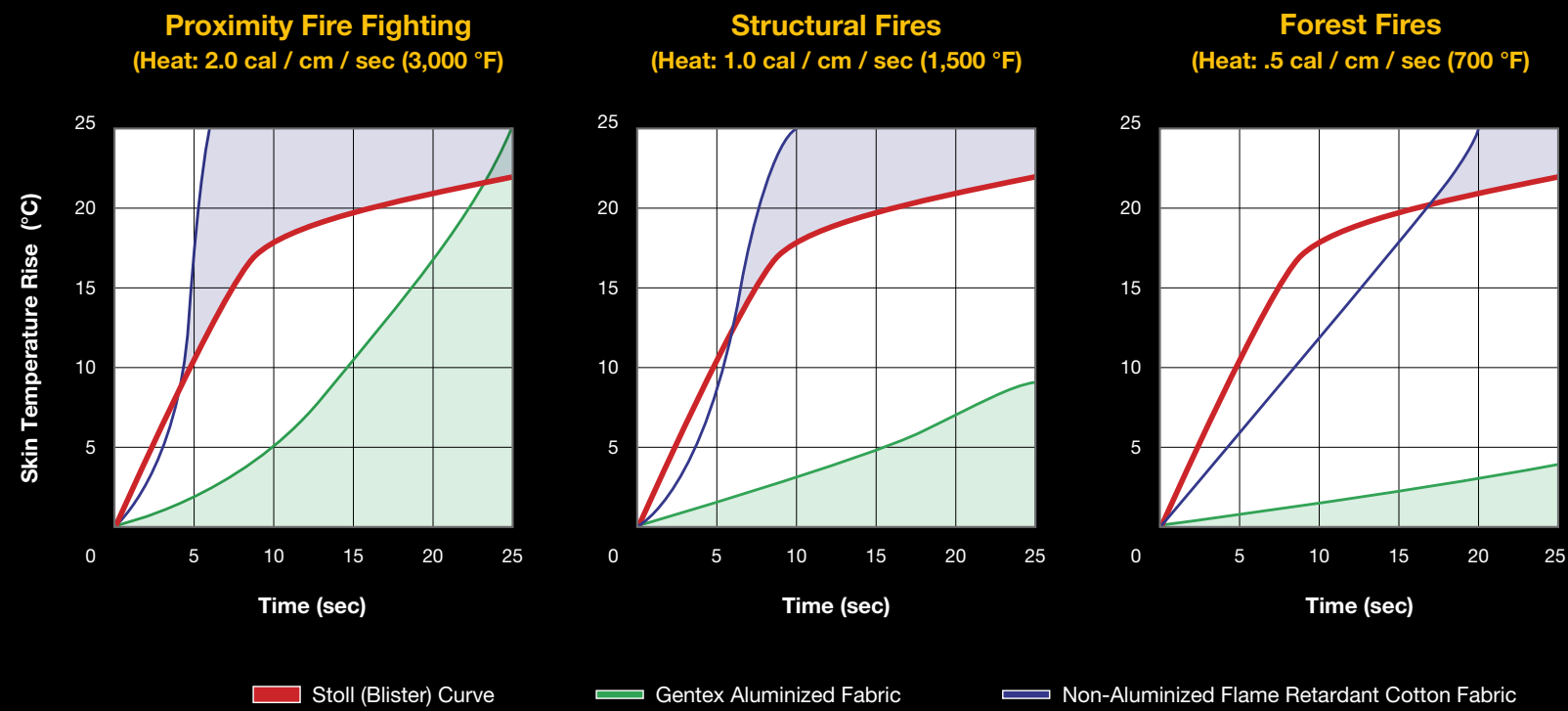
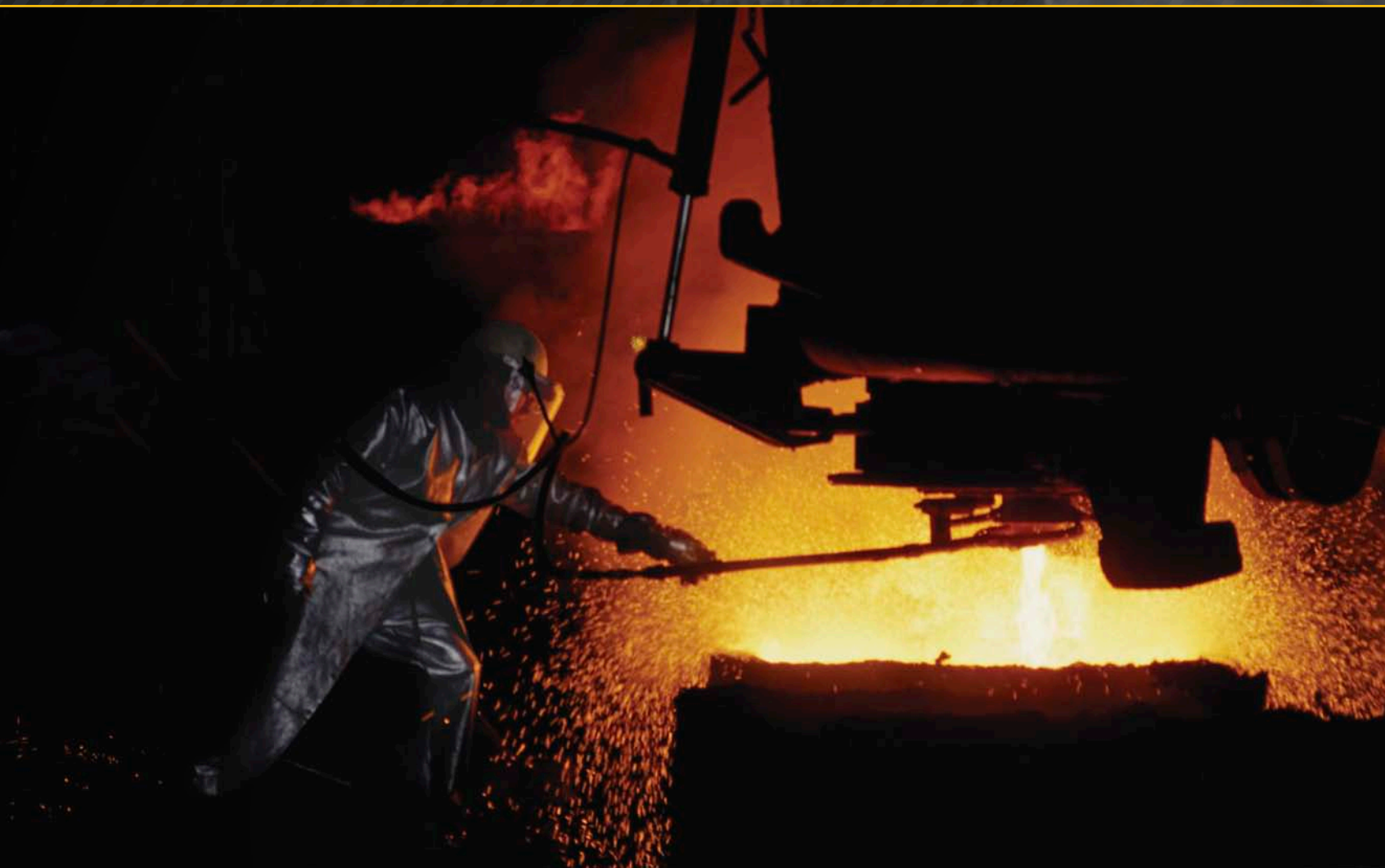


Superior Performance, Durability, and Value

Field proven for over fifty years, Gentex delivers the most durable aluminized fabrics in the industry. Each roll of Gentex Dual Mirror Aluminized Fabric is thoroughly tested and provides uncompromising function, appearance, and superior performance even in the most demanding applications. To continue to provide industry leading performance, Gentex continually enhances the properties of the aluminized surface of the fabric to meet the ever changing needs of our customers.

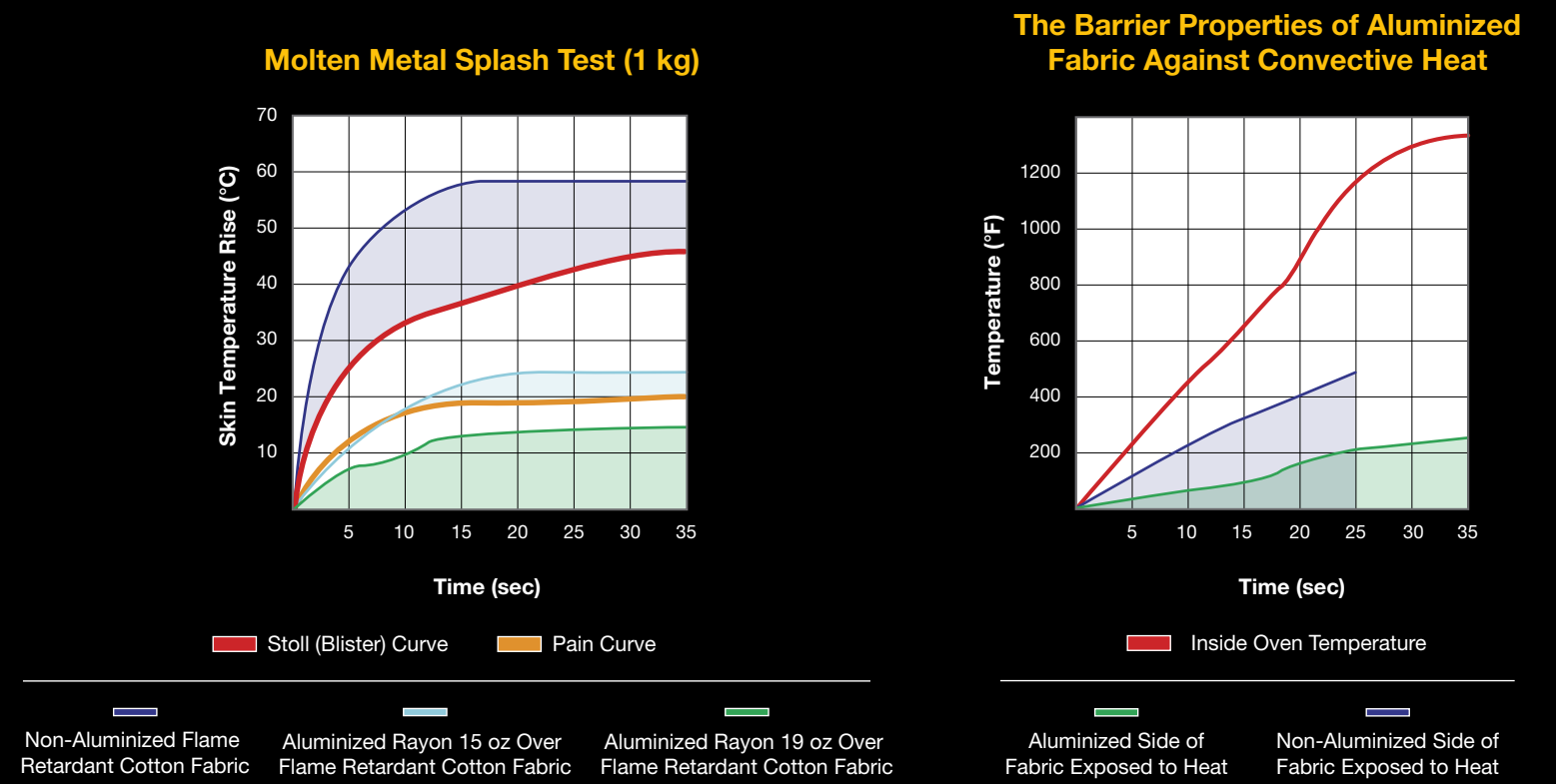
Test Shows Six Times Better Protection

Results of an NFPA® 1971 Radiant Reflective test shows Gentex Dual Mirror Aluminized Fabrics provide six times better protection at higher heats than similar weight non-aluminized fabrics.



NFPA 1971 Radiant Heat Test Exposure

These charts demonstrate the major differences in the protection against high levels of radiant heat between an aluminized and non-aluminized fabric. Required by NFPA 1971, a single layer of outer shell fabric cannot cross the Stoll (Blister) Curve in less than twenty seconds, which the standard Gentex aluminized fabric is well above that requirement. Other non-aluminized fabrics fall short of that needed protection.



In this convection heat study, the door of a muffler furnace was replaced with fabric. The furnace and the outside of the fabric doors' temperatures were then monitored. Convective heat is ambient heat of the air that is encountered in a room or confined space.

Comprehensive Fabric Line

With over twenty aluminized fabrics to choose from and an expert team to guide you in your selection, you can be assured you'll get the right fabric for your specific needs.

No matter which fabric you choose, you'll get:

- Gentex's unique five-layer structure for maximum reflectivity and durability
- The most efficient high temperature barrier material on the market
- 95% heat reflectance

Key specifications* met, including:

- NFPA 1971 Proximity Firefighters Outer shell requirements
- NFPA 701
- European Standard (EN) for Protective Clothing

- MIL-C 87076A
- MIL-C 249929A
- ASTM F955-85
- Fabrics manufactured to stringent ISO 9001 standards

** Contact Gentex for the application specifications for each fabric.*



Key Applications

While there are endless uses for our advanced aluminized fabrics, they are primarily used to create garments worn by firefighters and industrial workers operating in high-heat environments.

Proximity Firefighting Clothing

Radiant heat is a major component of a fire and it is the heat that is first encountered by a firefighter. Gentex Dual Mirror Aluminized Fabrics are specifically designed for the manufacture of flexible reflective garments for use in close proximity to high-intensity fires.

Lightweight and flexible outer-shell fabrics have been designed to be combined with vapor barriers and thermal liners to provide the firefighter with the ultimate protection against fires, which generate high levels of radiant heat.



Industrial Clothing

Since Gentex Dual Mirror Aluminized Fabrics are available with such a wide range of base materials, the industrial applications for the fabrics are many and varied. Any industrial environment, where hazards such as high heat, molten metal or high pressure steam exist, can take advantage of the unique insulation and heat reflective qualities of Gentex aluminized fabrics.



Reflects Radiant Heat. Reduces Ambient Heat.

Along with the ability to reflect radiant heat, aluminized fabrics reduce the flow of convective or ambient heat by fifty percent or more versus non-aluminized fabric.

Sheds Ferrous and Non-Ferrous Molten Metals

In addition to reflecting radiant heat and presenting an efficient barrier to convective heat, Dual Mirror Aluminized Fabrics help shed both ferrous and non-ferrous molten metals (if they are splashed on protective clothing). The ability to shed the metal is critical to reducing the high-heat transfer through the fabric. The "Molten Metal Splash Test" chart demonstrated some of the initial work done in the industry. This led to the development of Molten Metal Splash Tests such as ASTM F955-07.

Unlimited Applications

While Gentex's advanced aluminized fabrics are primarily used to create garments for firefighters and industrial workers, the potential uses of Gentex aluminized fabrics are limitless due to the unique insulation and heat reflective properties of the material. The aluminized surface is also impervious to most aqueous and hydrocarbon-based compounds, as well as being high temperature resistant and flame retardant. If your application requires one of these properties, we probably have the right material for you.

Recent Applications Include:

- Various under the hood and heat shield applications in auto racing and the automotive industry
- Turbine covers for yachts and boats
- Protective footwear for race car drivers
- Structural fire shelters
- Fire-resistant bags and briefcases for transporting documents



■ High temperature cable wraps



■ High temperature domes for lightweight travel ovens



■ Beverage and specialty coolers and more

Other GENTEX® Textile Products

In addition to aluminized fabrics, Gentex provides non-aluminized textile products for use in non-high-heat environments, including:

- Cut & Slash Protective Fabrics
- Ballistic Fabrics
- Engineered & Custom Designed Fabrics

Contact us Today

Please contact our textile experts to discuss your specific requirements for aluminized fabrics:

Gentex Corporation
324 Main Street
Carbondale, PA 18407 USA
(p) 570.282.8514
(f) 570.282.8555

To view our full line of textiles, visit
www.gentexcorp.com/aluminizedfabric

About Gentex Corporation

Leveraging a product development and manufacturing history that spans more than 100 years, Gentex is a leading provider of innovative solutions that enhance personal protection and situational awareness for global defense and security personnel operating in high performance environments. The company's Gentex® and Ops-Core® family of products and systems include helmet systems for both ground and air applications; aircrew life support systems; advanced optics; ground soldier protective equipment; high performance textiles; and communications equipment. Headquartered in Carbondale, Pennsylvania, the company is privately held and supports worldwide customers through a global distributor network and other U.S. facilities in Rancho Cucamonga, California; Manchester, New Hampshire; Millwood, New York; and Boston, Massachusetts.

Learn more at www.gentexcorp.com.

