

FIRE RETARDANT HOOK & LOOP

FOR SAFETY CRITICAL APPLICATIONS

CUSTOMER CHALLENGE

Manufacturing and engineering teams across automotive, aerospace, defense, medical device and industrial sectors face increasing pressure to meet stringent fire safety regulations while maintaining product performance.

Key challenges include:

- Meeting industry-specific fire safety standards (UL 94 V-2, FMVSS302, FAR 25.853, CAL 117, NFPA, UL 2043)
- Ensuring reliable fastening performance in high-heat environments up to 500°F
- Maintaining closure strength and durability despite exposure to extreme conditions
- Finding versatile, reusable fastening solutions that integrate with complex assemblies

THE HALCO® SOLUTION

Halco's FR Hook & Loop materials combine advanced flame retardant properties with proven hook and loop fastening technology.

This solution delivers:

- Fire retardant performance certified to UL 94 V-2, FMVSS302, FAR 25.853, CAL 117, NFPA and UL 2043 standards, as well as many OEM specs
- Temperature resistance up to 500°F while maintaining closure strength
- Multiple closure options including sew-on, back-to-back strap hook and loop and adhesive-backed versions
- Custom converting capabilities for precise widths, shapes and assembly-ready parts
- Custom made flame retardant straps and cable ties

APPLICATIONS & INDUSTRIES

AUTOMOTIVE



Automotive solutions include:

- Interior trim attachment meeting FMVSS302 requirements
- NVH (Noise, Vibration, Harshness) component mounting
- Seat cover and headliner fastening systems
- Interior panel assemblies
- Cable and wire harness management
- Carpeting and floor mat attachment
- Auto Loop Supplier

For automotive applications, FMVSS302 compliance is essential for all interior materials. Halco's fire retardant hook and loop products meet these requirements while providing the durability and design flexibility needed for modern vehicle assembly. Our products are widely used in automotive interior applications where reliable attachment and flame resistance are critical requirements. Halco's FR-rated hook and loop materials meet important specifications from major OEMs including GM3618M, Ford WSB-M15P35, and Daimler Chrysler PF-8543

AEROSPACE



Aerospace solutions include:

- Seating and upholstery attachment
- Passenger seating and upholstery
- Aircraft insulation blanket attachment
- Engine compartment component securement
- Cabin interior panel mounting systems

In aerospace applications, FAR 25.853 compliance is critical for all interior materials and components. This standard sets strict requirements for flammability, smoke density, and toxic gas emissions. Halco's fire retardant hook and loop products meet these rigorous specifications while providing the secure attachment needed for aircraft interior components and insulation systems. Our products are used in FAA-certified aircraft, such as Boeing and Airbus, where both reliable fastening and flame resistance are essential requirements.

DEFENSE/MILITARY



Defence/Military solutions include:

- Helmets and body armor attachment
- Vehicle interior flame resistant fastening
- Tents, shelters and equipment covers

Military applications often require adherence to multiple fire safety standards depending on the specific use case. Halco's fire retardant hook and loop products meet key military specifications for flame resistance while maintaining the durability and performance needed in tactical environments. Whether used in vehicles, shelters, or personal equipment, our FR products provide reliable fastening solutions that meet stringent military safety requirements. Halco's fire retardant hook and loop materials also meet mil-spec requirements for AA-55126 Rev. C.

INDUSTRIAL



Industrial solutions include:

- High temperature machinery insulation covers
- Wire harness protection in high-heat zones
- Welding curtain and protective barrier mounting
- Commercial and residential furniture/upholstery

Industrial applications require compliance with UL 94 V-2 standards for flame resistance, particularly in manufacturing and processing environments. For furniture and upholstery manufacturing, California Technical Bulletin 117 (Cal 117) sets additional fire safety requirements that Halco's FR products meet or exceed. Our fire retardant hook and loop products provide the strength and durability needed in demanding industrial settings while meeting these critical safety standards. Our products are widely used in applications where high temperatures and fire safety considerations make standard fasteners unsuitable.

DATA CENTER AND BUILDING INFRASTRUCTURE



Data Centre and Building Infrastructure solutions include:

- Plenum-rated cable management solutions compliant with UL 2043
- Hook and loop straps and ties for server rack cable organization
- Overhead cable tray and pathway management
- HVAC and building services wire management
- Security system and network infrastructure cable bundling

The UL 2043 rating is critical for data centers and commercial buildings where cables and fasteners are installed in plenum spaces (areas used for air circulation in HVAC systems), as required by National Electrical Code (NEC) Article 300.22. This standard ensures that materials used in these spaces meet strict requirements for both fire resistance and low smoke generation during combustion. Halco's plenum-rated hook and loop products provide a safe, reusable solution for cable management in these environments while maintaining compliance with both UL 2043 testing standards and NEC requirements.

HALCO® PRODUCT SOLUTIONS



SEW-IN FLAME RETARDANT HOOK AND LOOP

Can be sewn in, welded or laminated with adhesive



FLAME RETARDANT R9 ADHESIVE HOOK AND LOOP

Convenient, adhesive coated hook and loop tape with proven FR performance



FLAME RETARDANT BACK-TO-BACK STRAP HOOK AND LOOP

Used for FR-rated straps and cable-ties in cable & wire-harness management

Halco's full line of automotive specialty hook and loop products also meet FMVSS302 standards including Auto Mushroom Hook and Auto Mold-In Hook. They are engineered specifically for automotive interior applications and meet major OEM specifications.

www.halcousa.com/product-category/flame-retardant-heat-resistant

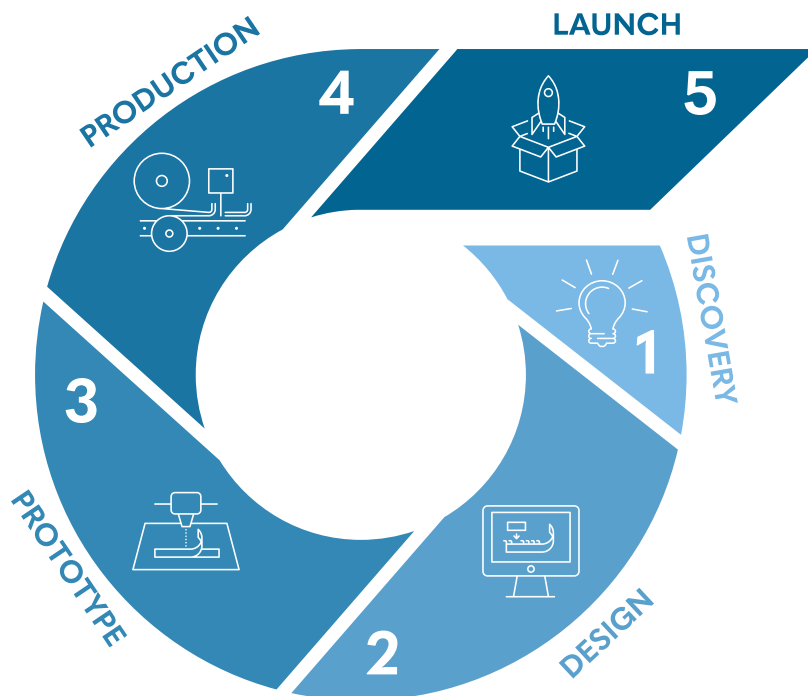


CONVERTING AND ENGINEERING SUPPORT

Halco provides comprehensive technical support for fire retardant and flame resistant application development:

1. Application review and specification development
2. Material selection and prototyping assistance
3. Custom converting and fabrication services
4. Quality documentation and regulatory compliance support

Visit our Converting Capabilities page to learn more:
www.halcousa.com/capabilities/converting-capabilities



Halco's comprehensive line of fire retardant hook and loop products provides reliable fastening solutions across multiple industries while meeting critical safety standards. Our combination of proven materials, custom converting capabilities, and technical expertise ensures that customers receive solutions precisely engineered for their specific applications. Whether you need automotive-qualified fasteners, aerospace-grade components, or plenum-rated cable management products, Halco delivers fire retardant hook and loop solutions that perform.

REQUEST OUR FLAME RETARDANT & HI-TEMP SAMPLE PACK

Tell us a little about your project and any samples you might need. We have the material in inventory and can ship rapidly.

www.halcousa.com/request-a-sample-flame-and-heat-resistant



Call: (510) 783-1400
Email: sales@halcousa.com

HALCOUSA.COM

