

MEDICAL-GRADE HOOK & LOOP FOR SINGLE-USE MEDICAL DEVICES

SECURING PATIENT SAFETY

APPLICATION OVERVIEW

Single-use medical devices (SUMD's) require reliable, sterile closures that can maintain integrity through sterilization processes while allowing for easy application and removal.

Halco's specialized hook and loop fastening systems offer ideal solutions for these disposable medical supplies where safety and performance are critical.



COMMON APPLICATIONS

SURGICAL AND HOSPITAL GOWNS



Secure closures at the neck, waist, and back that maintain coverage while allowing quick removal

SURGICAL DRAPES



Adjustable positioning systems that maintain sterile fields during procedures

RESPIRATORY AND CPAP



Soft to touch fastening solutions for tracheostomy and neonatal

OSTOMY BAGS AND COMPONENTS



Secure yet gentle attachment systems that allow for proper fit and comfortable wear while enabling regular bag changes

TUBE SECUREMENT DEVICES



Reliable fastening solutions for tube and line securement that minimize movement while allowing for adjustment when needed

PATIENT POSITIONING DEVICES



Temporary restraints and positioning aids for imaging and procedures

ELECTRODE ATTACHMENTS



Secure connections for monitoring equipment such as CGM devices and stick to skin monitoring

WOUND CARE DRESSING SECUREMENT



Low-profile closures for bandage systems

PERFORMANCE REQUIREMENTS

Medical-grade hook and loop products used in disposable medical supplies must meet specific requirements:

Biocompatibility compliance:

- Halco's medical-grade products are tested according to ISO 10993 standards for biocompatibility
- Ensures materials are free from cytotoxicity, sensitization, and irritation concerns

Sterilization compatibility:

- Compatible with common medical device sterilization methods
- Final device manufacturers validate sterilization performance to ISO 11135 (ethylene oxide) and ISO 11137 (radiation) standards as part of their end-product qualification

Performance characteristics:

- Low profile (minimal thickness) to prevent pressure points
- Light peel strength for easy removal without tearing disposable materials
- Strong shear strength to prevent accidental opening
- Consistent cycle life appropriate for limited-use applications

Material considerations:

- Free from latex and known irritants
- Minimal particulate generation
- Compatible with non-woven and plastic substrates

HALCO® MEDICAL SOLUTIONS

Halco provides specialized hook and loop systems designed specifically for medical disposable applications:



MEDICAL MOLDED HOOK



MEDICAL LOOP



ADHESIVE SOLUTIONS SUCH AS SOLVENTUM 1510 / AVERY 445

Medical-Grade Loop and Hook:

- Manufactured to meet healthcare-specific requirements
- ISO 10993 biocompatibility tested
- Engineered to maintain performance after sterilization processes

Custom Adhesive Lamination Options:

- Halco can laminate various adhesive tapes to hook and loop, including:
- Medical grade adhesive tapes such as 1510 Medical Tape
- Rubber or acrylic adhesive tapes based on application requirements and substrate compatibility

Converting Capabilities:

- Die-cut shapes to exact specifications
- Kiss-cut parts on liners for easy application in manufacturing
- Perforated strips for easy dispensing
- Clean-room compatible converting options
- Custom slit widths of spooling



APPLICATION EXAMPLE: SURGICAL GOWN CLOSURE SYSTEM

A typical challenge for manufacturers of disposable medical garments is developing closure systems for surgical gowns that maintain performance through sterilization while providing secure closure with easy removal.

In such scenarios, Halco could develop a solution featuring:

Low-profile medical-grade hook and loop with ISO 10993 biocompatibility testing

Custom lamination with an appropriate medical grade adhesive tape for compatibility with non-woven material

Die-cut shapes with rounded corners to help prevent material tearing

Delivered on rolls to support efficient manufacturing processes and automation

With this type of solution, manufacturers could potentially integrate the fastening system into their products, conduct their required sterilization validation testing, and potentially improve both production efficiency and end-user satisfaction.

PARTNER WITH HALCO FOR YOUR SINGLE USE MEDICAL DEVICES

Halco's expertise in medical-grade hook and loop solutions combined with our converting capabilities makes us an ideal partner for disposable medical product manufacturers.

Our technical team can help you select the optimal fastening system for your specific application, providing components with verified biocompatibility that can be incorporated into your sterilization validation protocols.

Contact us today for samples, technical data sheets, or to discuss your custom application needs.



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