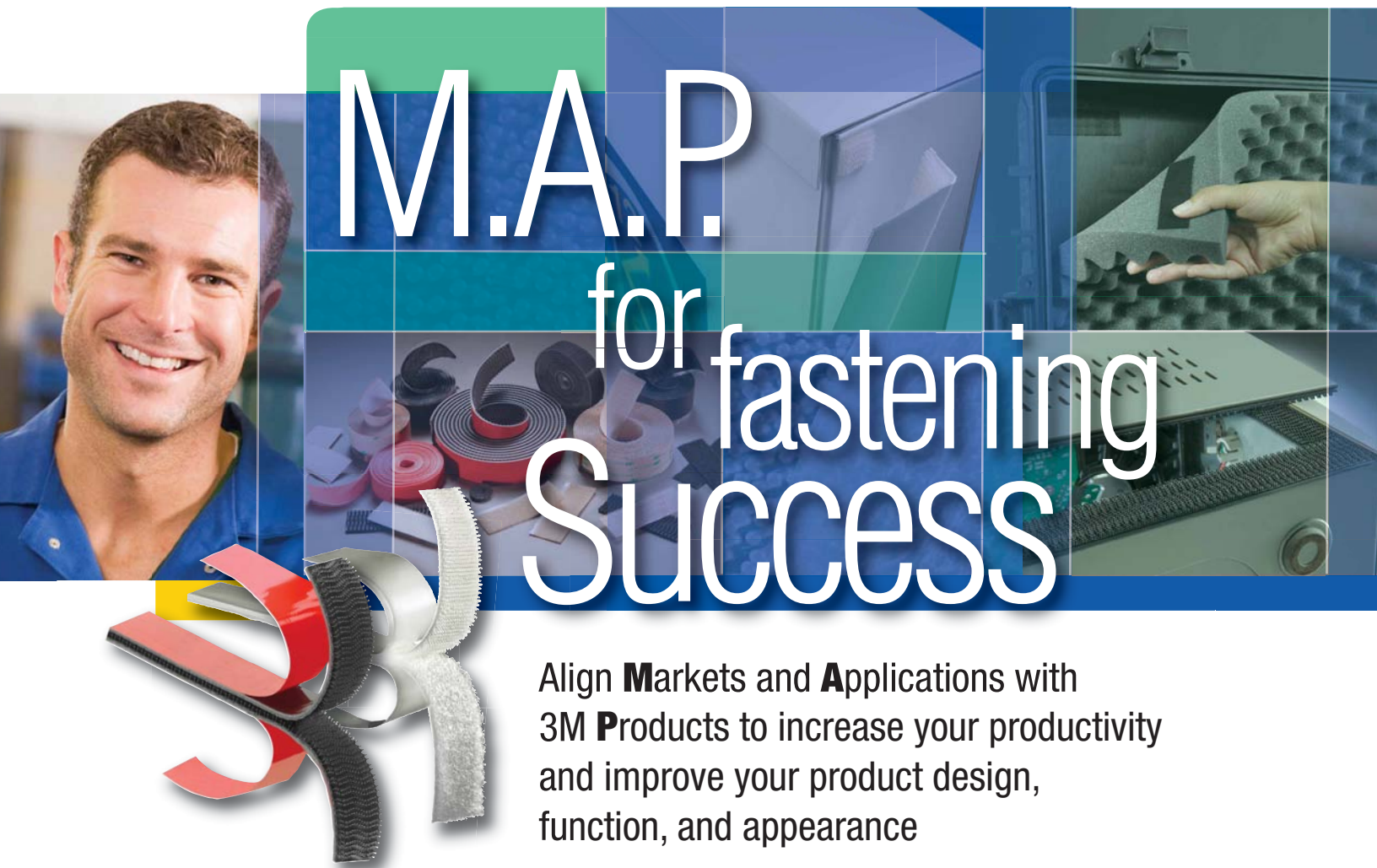


# 3M™ Reclosable Fasteners Design Selection Guide



## M.A.P. for fastening Success

Align **M**arkets and **A**pplications with  
3M **P**roducts to increase your productivity  
and improve your product design,  
function, and appearance



# Markets and Applications

## General Industrial



- Attach plastic and screen enclosure panels around automated equipment in temporary manufacturing cells
- Attach acoustic control panels to sound containment enclosure
- Hold access panels to manufacturing equipment, control panels, HVAC units, electrical enclosures, electronic equipment, and elevators
- Attach moveable sensors
- Hold remote controls on equipment for storage when not in use
- Fasten rigid or flexible solar panels
- Attach decorative panels and circulation vents to refrigerators
- Hang tools on maintenance carts for ready access and secure transport

## POP, Display, and Signage



- Attach metal L-bracket edging to hold rigid graphics panels and prevent light leaks on internally-illuminated sign
- Hang graphics and banners for trade shows and in-store promotion
- Attach repositionable shelving for retail display and museum exhibits
- Attach product samples to trade show backwalls and retail display cases
- Attach literature dispensers
- Secure carpet to trade show floors, walls, and counter facings
- Attach flexible retail signage for products that change frequently with the season, holiday, popularity, or promotional focus

## Specialty Vehicle and Transportation



- Fasten headliners and ceiling panels in over-the-road truck cabs, buses, ambulances, and recreational vehicles
- Hang ceiling light diffusion panels in light rail cars and buses
- Hang equipment on ambulance walls
- Secure removable seat covers and cushions in ambulances
- Attach door and wall panels in truck cabs
- Suspend privacy curtains in truck cabs
- Attach air bag cover in trucks and cars
- Attach decorative liner to interior SUV cargo areas
- Attach ceiling, wall and cushioning panels in cargo and horse trailers

## Furniture



- Assemble modular office wall panels
- Attach fabric-covered cushions to chair seats, backs, and arm rests
- Attach cover plate to wire and cable channels in modular office walls
- Secure window shade to header rail
- Fasten institutional furniture seats and backs to metal frames
- Architectural/Construction flooring, carpeting, lighting, and decorative panels
- Marine and yacht carpeting, seat cushions, and wall panels
- Sporting goods such as securing helmet cushions, closing tent flaps, and assembling hunting blinds
- Medical gowns and equipment such as orthopedic braces

## And more

# M.A.P. for Fastening Success...

## simple 4-step process

With this step-by-step guide you can more easily align **M**arkets and **A**pplications with a 3M reclosable fastener **P**roduct to help improve your product and process.

### Step 1: Challenge traditional thinking

Lose the screws. Consider 3M™ Reclosable Fasteners to replace screws, bolts, nails, rivets, welds, and other traditional fastening methods in many applications involving repeated opening

and closing, attaching and detaching. Consider even converting a permanent closure to reclosable one.

### Step 2: Select closure strength

Based on the specific construction of each 3M™ Reclosable Fastener, select from a wide range of holding strength to match the weight of surfaces and stresses of use.

### Step 3: Select adhesive performance

Select from multiple adhesive backings to best match different substrates and environmental conditions. Or, select plain-backed versions.

### Step 4: Combine, test, and evaluate

Combine closure strength and adhesive performance to determine the right fastener(s) for testing and evaluation. See charts on pages 5-8.

## 1. Challenge traditional thinking

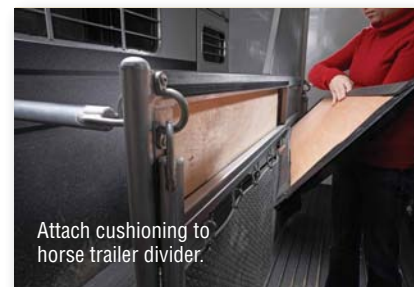
### Lose the screws...

as well as the nuts and bolts, snaps, latches, nails, zippers, clasps, wingnuts, and welds.



### Think 3M First for expanded options to improve design and function

- Range of closure strengths and thicknesses
- Hold together even dissimilar substrates, then attach and detach multiple times easily
- Choice of plain-backed or pressure sensitive adhesive-backed to bond to many surfaces even LSE plastics
- Reliable performance in hot, cold, wet, sunny, and other difficult environments
- Colors to accent or clear to blend for aesthetics
- Save the weight of metal fasteners



Attach cushioning to horse trailer divider.

### Think 3M First for smooth, clean surfaces to improve appearance

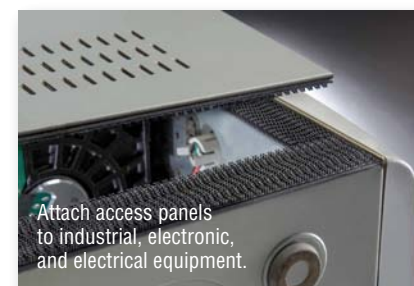
- Hidden beneath the surface for greater design flexibility
- No nail or screw heads, snap caps, weld marks, or breakable teeth
- Maintain surface integrity with no holes to invite moisture, corrosion, or dirt
- Sleek appearance for competitive advantage



Invisibly attach fascia to painted metal valence.

### Think 3M First for faster, easier application to save time and labor

- Pressure sensitive adhesive options stick on contact as quickly and easily as tape for quick installation without special tools
- No drilling, screwing, tightening, sewing, or complex process
- Quickly and easily adjust or reattach until precisely aligned



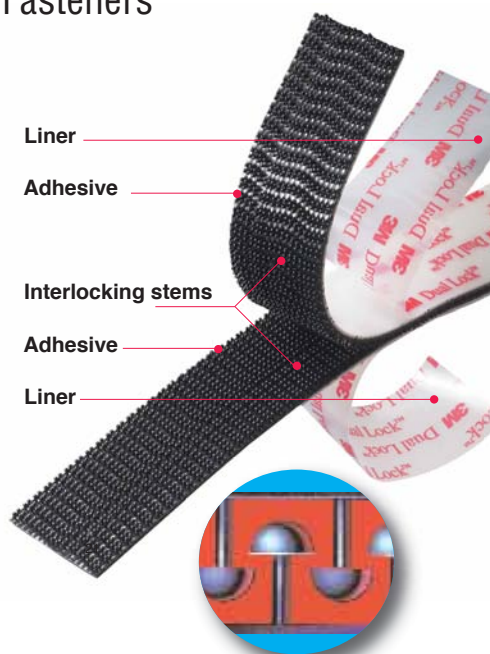
Attach access panels to industrial, electronic, and electrical equipment.

1-800-362-3550  
[www.3M.com/fasteners](http://www.3M.com/fasteners)

## 2. Select closure strength based on fastener construction

### 3M™ Dual Lock™ Reclosable Fasteners

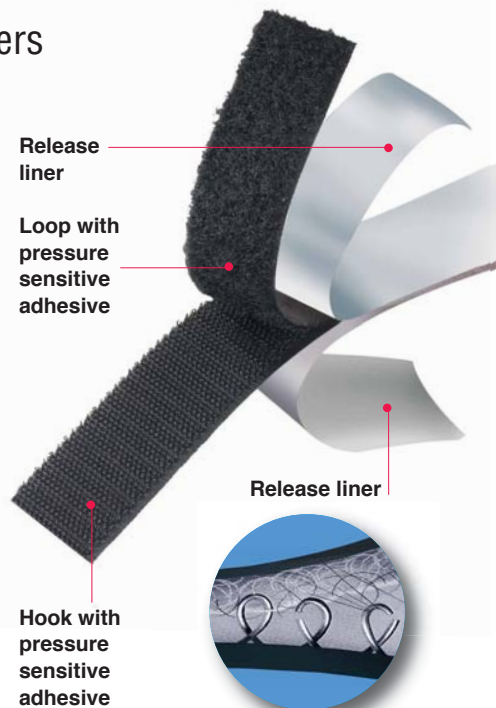
- Mushroom-shaped stems on one side of the fastener interlock with identically shaped stems on the other side for 5X greater closure strength than hook and loop; peel apart for opening
- Pressure sensitive adhesive-backed versions\* bond on contact to a variety of flexible and rigid materials; choice of specialized adhesive properties (see charts on pages 5-8)
- Choice of stems per square inch: 170, 250, 400 (higher the combined number, greater the closure strength—see chart at right)
- Larger the fastener area, greater the strength for holding weight and resisting shear and peel
- Low profile option for a snug fit with about half the thickness of the standard products



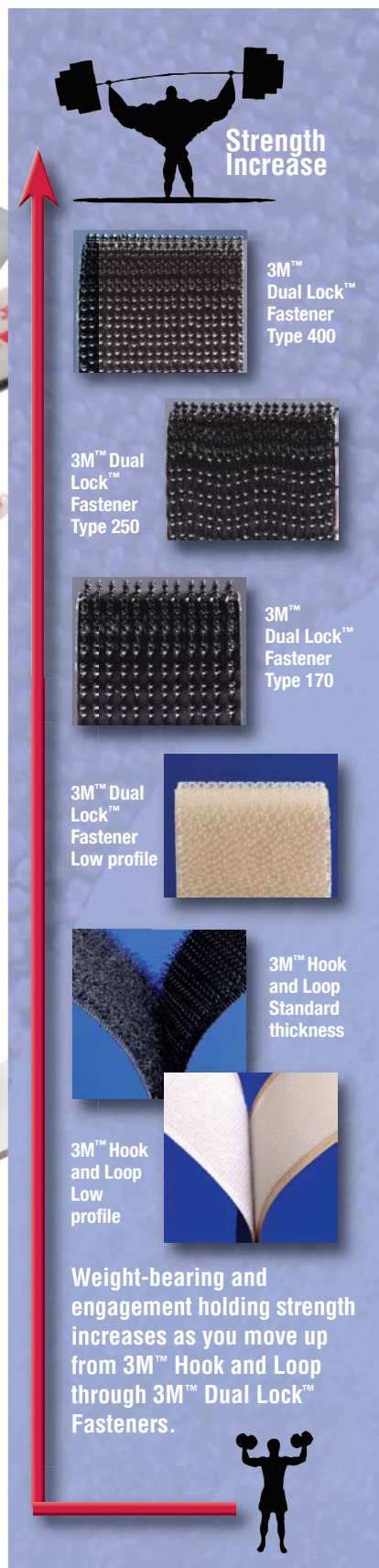
| Effective combinations; strength increasing left to right |         |         |         |
|-----------------------------------------------------------|---------|---------|---------|
| 170/250                                                   | 250/250 | 170/400 | 250/400 |

### 3M™ Hook and Loop Fasteners

- Stiff hooks on one side of the fastener mesh with pliable loops on the other side for secure closure; peel one side away for opening
- Pressure sensitive adhesive-backed versions\* bond on contact to a variety of flexible and rigid materials; variety of adhesive properties
- The larger the fastener area, the greater the strength for holding weight and resisting shear and peel
- Low profile option for applications where thickness is more critical than number of closures; 75% thinner than standard product with fewer openings and closings



\* Non-adhesive versions available.



# 3. Select adhesive performance

## Rubber, Acrylic, or Non-adhesive

For the application ease of a PSA tape, a variety of adhesive backings are available to meet production and end use criteria (see charts starting next page). Consider rubber or acrylic.

### Rubber Adhesives

- High initial adhesion upon contact
- Quick stick adhesion
- Good shear strength
- Narrow operating temperature range
- Fair moisture resistance in end use
- Some solvent resistance in end use
- Fair UV resistance for indoor use
- Moderate aging performance
- Bonds well to a variety of LSE materials including plastics and powder coated surfaces

### Acrylic Adhesives

- Fair initial adhesion upon contact
- Build-up over 72 hours to strong adhesion
- High shear strength
- Wide operating temperature range
- Excellent moisture resistance in end use
- Excellent solvent resistance in end use
- Excellent UV resistance for indoor and outdoor use
- Excellent aging performance
- Bonds well to HSE materials including metals and HSE plastics

### Non-adhesive versions

3M™ Dual Lock™ Fasteners are also available as non-adhesive or non-woven backed rolls, or rigid-backed circles or strips.

Plain-backed 3M™ Hook and Loop Fasteners are available for sewing to the fabric and leather of jackets and gloves.



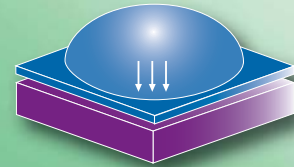
Back-to-back 3M™ Hook and Loop Fastener SJ3000 meshes with itself as a replacement for string, tapes, rubber bands, wire, and strapping.



## Surface Contact

Rolling down the fastener on a clean and dry substrate increases adhesive flow and contact for more secure bonding. Contact and adhesion will build over time until reaching ultimate strength.

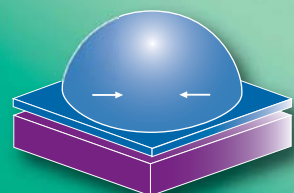
## Surface Energy



### HSE High Surface Energy Substrates

Adhesive "wets out" the surface. Higher the surface energy, better the bond performance.

- Metal**
- Copper
  - Aluminum
  - Tin
  - Stainless Steel
- Glass**
- Plastics**
- Phenolic
  - Nylon
  - Alkyd Enamel
  - Polyester
  - Epoxy Paint
  - Polyurethane Paint
  - ABS
  - Polycarbonate
  - PVC Rigid
  - Acrylic



### LSE Low Surface Energy Substrates

Considered "hard-to-bond" since the adhesive "beads up" and does not readily "wet" the surface.

- Plastics**
- PVA
  - Polystyrene
  - Acetal
  - EVA
  - Polyethylene
  - Polypropylene
  - Polyvinyl Fluoride Film
- Powder coated metal is also LSE.

# 4. Combine, test, and evaluate

## 3M™ Dual Lock™ Reclosable Fasteners

| Product                                                                | Stem Density | Color  | Liner | Engaged Thickness Inches (mm) | Temperature Resistance (F/C) | Features/Application Ideas                                                                                                                                                                                                                                                               |
|------------------------------------------------------------------------|--------------|--------|-------|-------------------------------|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Rubber Adhesive                                                        |              |        |       |                               |                              |                                                                                                                                                                                                                                                                                          |
| SJ3540                                                                 | 250          | Black  | A     | 0.23 (5.7)                    | 120/49                       | Low temperature performance. Bonds well to plastics (acrylic, poly carbonate, ABS), powder coated paints and low surface energy materials (polypropylene, polyethylene). Indoor and limited outdoor use.                                                                                 |
| SJ3541                                                                 | 400          | Black  | A     | 0.23 (5.7)                    | 120/49                       |                                                                                                                                                                                                                                                                                          |
| SJ3542                                                                 | 170          | Black  | A     | 0.23 (5.7)                    | 120/49                       |                                                                                                                                                                                                                                                                                          |
| General Purpose Acrylic Adhesive                                       |              |        |       |                               |                              |                                                                                                                                                                                                                                                                                          |
| SJ3550                                                                 | 250          | Black  | D     | 0.23 (5.7)                    | 200/93                       | High temperature performance. Bonds well to metals (aluminum, stainless steel), glass, plastics (acrylic, polycarbonate, ABS) and paints. Indoor and outdoor use.<br><br>* Note: This is a clear fastener with white adhesive giving the product a white appearance.                     |
| SJ3551                                                                 | 400          | Black  | D     | 0.23 (5.7)                    | 200/93                       |                                                                                                                                                                                                                                                                                          |
| SJ3552                                                                 | 170          | Black  | D     | 0.23 (5.7)                    | 200/93                       |                                                                                                                                                                                                                                                                                          |
| SJ3557                                                                 | 170          | White* | D     | 0.23 (5.7)                    | 200/93                       |                                                                                                                                                                                                                                                                                          |
| SJ3558                                                                 | 250          | White* | D     | 0.23 (5.7)                    | 200/93                       |                                                                                                                                                                                                                                                                                          |
| SJ3559                                                                 | 400          | White* | D     | 0.23 (5.7)                    | 200/93                       |                                                                                                                                                                                                                                                                                          |
| Clear Acrylic Adhesive                                                 |              |        |       |                               |                              |                                                                                                                                                                                                                                                                                          |
| SJ3560                                                                 | 250          | Clear  | D     | 0.23 (5.7)                    | 220/104                      | Highest temperature performance. Bonds well to metals (aluminum, stainless steel), glass and plastics (acrylic, polycarbonate, ABS). Indoor and outdoor use.                                                                                                                             |
| SJ3561                                                                 | 400          | Clear  | D     | 0.23 (5.7)                    | 220/104                      |                                                                                                                                                                                                                                                                                          |
| SJ3562                                                                 | 170          | Clear  | D     | 0.23 (5.7)                    | 220/104                      |                                                                                                                                                                                                                                                                                          |
| SJ3550CF                                                               | 250          | Black  | D     | 0.23 (5.7)                    | 220/104                      |                                                                                                                                                                                                                                                                                          |
| SJ3551CF                                                               | 400          | Black  | D     | 0.23 (5.7)                    | 220/104                      |                                                                                                                                                                                                                                                                                          |
| SJ3552CF                                                               | 170          | Black  | D     | 0.23 (5.7)                    | 220/104                      |                                                                                                                                                                                                                                                                                          |
| Modified Acrylic Adhesive                                              |              |        |       |                               |                              |                                                                                                                                                                                                                                                                                          |
| SJ3244                                                                 | 170          | Black  | E     | 0.24 (6.1)                    | 120/49                       | Low temperature performance. Bonds well to low surface energy materials. Indoor and outdoor use.                                                                                                                                                                                         |
| SJ3245                                                                 | 250          | Black  | E     | 0.24 (6.1)                    | 120/49                       |                                                                                                                                                                                                                                                                                          |
| SJ3246                                                                 | 400          | Black  | E     | 0.24 (6.1)                    | 120/49                       |                                                                                                                                                                                                                                                                                          |
| SJ3870                                                                 | 250          | Black  | C     | 0.24 (6.1)                    | 180/82                       | Medium temperature performance. Bonds well to plastics (acrylic, polycarbonate, ABS), powder coated paints and medium to low surface energy materials. Indoor and outdoor use. Available in 45 yard rolls only.                                                                          |
| SJ3871                                                                 | 400          | Black  | C     | 0.24 (6.1)                    | 180/82                       |                                                                                                                                                                                                                                                                                          |
| SJ3872                                                                 | 170          | Black  | C     | 0.24 (6.1)                    | 180/82                       |                                                                                                                                                                                                                                                                                          |
| Low Surface Energy Acrylic Adhesive                                    |              |        |       |                               |                              |                                                                                                                                                                                                                                                                                          |
| SJ3773                                                                 | 170          | Black  | F     | 0.16(4.1)                     | 120/49                       | Low to medium temperature performance. Bonds well to metals (aluminum, stainless steel), glass, many plastics (polypropylene, polyethylene, polycarbonate, ABS) powder coated paints and medium to low surface energy materials. Thinner adhesive than standard. Indoor and outdoor use. |
| SJ3782                                                                 | 250          | Black  | F     | 0.16(4.1)                     | 120/49                       |                                                                                                                                                                                                                                                                                          |
| Specialty Products: No Adhesive, Non-Woven, and Rigid Back/Piece Parts |              |        |       |                               |                              |                                                                                                                                                                                                                                                                                          |
| SJ3443                                                                 | 400          | Black  | N/A   | 0.28 (7.1)                    | 200/93                       | Backed with a unique felt-like non-woven polypropylene fabric, this product is for use with a variety of hot melt or liquid adhesives. Can be bonded to wood, foam, fabric or similar materials. Good temperature performance.                                                           |
| SJ3444                                                                 | 170          | Black  | N/A   | 0.28 (7.1)                    | 200/93                       |                                                                                                                                                                                                                                                                                          |
| SJ3445                                                                 | 250          | Black  | N/A   | 0.28 (7.1)                    | 200/93                       |                                                                                                                                                                                                                                                                                          |
| SJ3463                                                                 | 400          | Black  | None  | 0.20 (5.1)*                   | 200/93                       | Thicker than standard. Designed for mechanical attachment, such as riveting, or sliding into retention brackets. Round 13/16 inches diameter with 0.16 inch hole.                                                                                                                        |
| SJ3481                                                                 | 400          | Black  | None  | 0.20 (5.1)*                   | 200/93                       | Thicker than standard. Designed for mechanical attachment, such as riveting, or sliding into retention brackets. Available in 48 inch strips.                                                                                                                                            |

Note: The technical information and data should be considered representative only and should not be used for specification purposes.

\* Single thickness; not engaged.



Fasten flexible solar panels to roofing membrane with strength to resist wind.



Secure plastic sign to window glass.



Hold plastic air vent to base of refrigerator with strength to resist vibration

## 3M™ Dual Lock™ Reclosable Fasteners – Low Profile/Thin

| Product                 | Stem Density         | Color          | Liner | Engaged Thickness Inches (mm) | Temperature Resistance (F/C) | Features/Application Ideas                                                                                                                                                                                                                                    |
|-------------------------|----------------------|----------------|-------|-------------------------------|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Acrylic Adhesive</b> |                      |                |       |                               |                              |                                                                                                                                                                                                                                                               |
| SJ4570<br>SJ4575        | Low Profile/<br>Thin | Clear<br>Black | F     | 0.098 (2.489)                 | 158/70                       | Low to medium temperature performance. Bonds well to metals, glass, many plastics (polypropylene, polyethylene, polycarbonate, ABS) powder coated paints and medium to low surface energy materials. Half standard thickness. Indoor and limited outdoor use. |
| SJ4580                  | Low Profile/<br>Thin | Clear          | C     | 0.12 (3.0)                    | 200/93                       | High temperature performance. Bonds well to CARC and enamel paint, bare metal, glass, wood (painted or sealed) and many plastics (acrylic, polystyrene, polycarbonate, ABS). Half standard thickness. Indoor and outdoor use.                                 |

### Liners:

- A - White 5.0 mil (0.13 mm) thick polyolefin with silicone release coating
- B - Brown 83# polykraft liner printed with "3M™" in green. Good for diecutting directly against liner.
- C - Red 4.5 mil (0.11 mm) thick polyolefin with no silicone release coating
- D - Clear 4.0 mil (0.10 mm) thick polyolefin with silicone release coating
- E - White 5.0 mil (0.13 mm) thick polyethylene with silicone release coating
- F - Brown 83# polykraft liner printed with "3M™ Dual Lock™" in green. Good for diecutting directly against liner.

**Footnotes:** 1) Type 400 is not recommended to be engaged to other type 400 fasteners. As well, type 170 should not be engaged with type 170. 2) Acrylic PSAs are best suited for outdoor or high humidity applications for medium to high energy surfaces. 3) Engaged thickness is for products with the same backcoating. You can mix products with different backcoatings to obtain an even greater variety of engaged thicknesses. Any of these 3M™ Dual Lock™ Reclosable Fasteners can be engaged with 3M™ Loop Reclosable Fasteners providing a quick grab closure with high strength and limited cycle life.

**Notes:** Suggest 4 square inches of fastener per pound of load as a starting point for evaluation of long term performance. Suggest type 250 engaged to type 250 as a starting point for evaluations. Tensile strength increases in the following order: 170/250 < 250/250 < 170/400 < 250/400. Maximum widths are 6" except 3M™ Dual Lock™ Reclosable Fasteners SJ3443, SJ3444, and SJ3445 which are 4" maximum widths.. All products available on 50 yard rolls except 3M™ Dual Lock™ Reclosable Fasteners SJ3870, SJ3871, and SJ3872 which are 45 yards and SJ3481 which comes in four foot strips. This information should be considered representative only, for help in narrowing the list of possible fasteners for further and more detailed evaluation, and should not be used for specification purposes. User is responsible for determining whether the 3M product is fit for the desired end use. Refer to specific product technical data sheets for more detailed product performance information.

## 3M™ Hook and Loop Fasteners

| Product                                | Hook/ Loop | Closure Life | Product Material | Liner | Engaged Thickness Inches (mm) | Temperature Resistance (F/C) | Features/Application Ideas                                                                                                                                                                                                                         |
|----------------------------------------|------------|--------------|------------------|-------|-------------------------------|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| High Performance Rubber Adhesive       |            |              |                  |       |                               |                              |                                                                                                                                                                                                                                                    |
| SJ3526N                                | Hook       | 5,000        | Nylon            | A     | 0.14 (3.6)                    | 120/49                       | Medium temperature performance. Bonds well to a variety of plastics, bare and powder coated metal, glass, sealed wood, paper and card board. Indoor use.                                                                                           |
| SJ3527N                                | Loop       | 5,000        | Nylon            | A     | 0.14 (3.6)                    | 120/49                       |                                                                                                                                                                                                                                                    |
| Modified Rubber Adhesive               |            |              |                  |       |                               |                              |                                                                                                                                                                                                                                                    |
| SJ3532N                                | Hook       | 5,000        | Nylon            | C     | 0.14 (3.6)                    | 100/38                       | Medium temperature performance. Bonds well to a variety of plastics, paint, bare and powder coated metal, glass, sealed wood, fabrics, paper and cardboard. Indoor use.                                                                            |
| SJ3533N                                | Loop       | 5,000        | Nylon            | C     | 0.14 (3.6)                    | 100/38                       |                                                                                                                                                                                                                                                    |
| General Performance Rubber Adhesive    |            |              |                  |       |                               |                              |                                                                                                                                                                                                                                                    |
| SJ3530                                 | Hook       | 5,000        | Nylon            | C     | 0.14 (3.6)                    | 90/32                        | Low temperature performance. Bonds well to a variety of plastics, paint, bare and powder coated metal, glass, sealed wood, fabrics, paper and cardboard. Indoor use.                                                                               |
| SJ3531                                 | Loop       | 5,000        | Nylon            | C     | 0.14 (3.6)                    | 90/32                        |                                                                                                                                                                                                                                                    |
| High Performance Acrylic               |            |              |                  |       |                               |                              |                                                                                                                                                                                                                                                    |
| SJ3571                                 | Loop       | 5,000        | Nylon            | D     | 0.14 (3.6)                    | 200/93                       | High temperature performance. Bonds well to bare and painted (non-powder coated) metal,glass, sealed wood, paint and many plastics. Indoor and outdoor use.                                                                                        |
| SJ3572                                 | Hook       | 5,000        | Nylon            | D     | 0.14 (3.6)                    | 200/93                       |                                                                                                                                                                                                                                                    |
| SJ3576                                 | Hook       | 1,000        | Polyester        | D     | 0.14 (3.6)                    | 200/93                       | High temperature performance. Bonds well to bare and painted (non-powder coated) metal, glass, sealed wood, paint and many plastics. Excellent for humid outdoor conditions. Improved water resistance over nylon product. Indoor and outdoor use. |
| SJ3577                                 | Loop       | 1,000        | Polyester        | D     | 0.14 (3.6)                    | 200/93                       |                                                                                                                                                                                                                                                    |
| General Performance Acrylic Adhesive   |            |              |                  |       |                               |                              |                                                                                                                                                                                                                                                    |
| SJ3546                                 | Hook       | 5,000        | Nylon            | G     | 0.14 (3.6)                    | 180/82                       | Medium temperature performance. Bonds well to some low surface energy materials. Indoor and outdoor use.                                                                                                                                           |
| SJ3547                                 | Loop       | 5,000        | Nylon            | G     | 0.14 (3.6)                    | 180/82                       |                                                                                                                                                                                                                                                    |
| SJ3596                                 | Hook       | 5,000        | Nylon            | G     | 0.14 (3.6)                    | 180/82                       | Made in USA. Medium temperature performance. Bonds well to some low surface energy materials. Indoor and outdoor use.                                                                                                                              |
| SJ3597                                 | Loop       | 5,000        | Nylon            | G     | 0.14 (3.6)                    | 180/82                       |                                                                                                                                                                                                                                                    |
| Plasticizer Resistant Acrylic Adhesive |            |              |                  |       |                               |                              |                                                                                                                                                                                                                                                    |
| SJ3522                                 | Hook       | 5,000        | Nylon            | B     | 0.14 (3.6)                    | 158/70                       | Medium temperature performance. Bonds well to flexible vinyl, bare and painted metal, glass, sealed wood and many plastics. Resists many different plasticized vinyls. Indoor use.                                                                 |
| SJ3523                                 | Loop       | 5,000        | Nylon            | B     | 0.14 (3.6)                    | 158/70                       |                                                                                                                                                                                                                                                    |
| Flame Resistant Adhesive               |            |              |                  |       |                               |                              |                                                                                                                                                                                                                                                    |
| SJ3518FR                               | Loop       | 5,000        | FR Nylon         | A     | 0.14 (3.6)                    | 100/38                       | Medium temperature performance. Bonds wells to bare and painted metal, paint, glass, sealed wood, paper and cardboard and many plastics.                                                                                                           |
| SJ3519FR                               | Hook       | 5,000        | FR Nylon         | A     | 0.14 (3.6)                    | 100/38                       |                                                                                                                                                                                                                                                    |
| SJ3586FR                               | Hook       | 1,000        | FR Polyester     | A     | 0.17 (4.3)                    | 100/38                       | Medium temperature performance. Bonds wells to bare and painted metal, paint, glass, sealed wood, paper and cardboard and many plastics. Excellent for humid outdoor conditions. Improved water resistance over nylon product.                     |
| SJ3587FR                               | Loop       | 1,000        | FR Polyester     | A     | 0.17 (4.3)                    | 100/38                       |                                                                                                                                                                                                                                                    |

Note: The technical information and data should be considered representative only and should not be used for specification purposes.

*Continued on back*

## 3M™ Hook and Loop Fasteners (cont.)

| Product                                 | Hook/Loop | Closure Life | Product Material | Liner | Engaged Thickness Inches (mm) | Temperature Resistance (F/C) | Features/Application Ideas                                                                                                                                                                                                     |
|-----------------------------------------|-----------|--------------|------------------|-------|-------------------------------|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Plain-Back, Non-Adhesive, Sew On</b> |           |              |                  |       |                               |                              |                                                                                                                                                                                                                                |
| SJ3401                                  | Loop      | 5,000        | Nylon            | None  | 0.12 (3.0)                    | 200/93                       | Plain-backed fastener designed for sew on applications. Ideal replacement for zippers, buttons, snaps and laces. Indoor and outdoor use.                                                                                       |
| SJ3402                                  | Hook      | 5,000        | Nylon            | None  | 0.12 (3.0)                    | 200/93                       |                                                                                                                                                                                                                                |
| SJ3476                                  | Hook      | 1,000        | Polyester        | None  | 0.13 (3.3)                    | 200/93                       | Plain-backed fastener designed for sew on applications. Ideal replacement for zippers, buttons, snaps and laces. Excellent for humid outdoor conditions. Improved water resistance over nylon product. Indoor and outdoor use. |
| SJ3477                                  | Loop      | 1,000        | Polyester        | None  | 0.13 (3.3)                    | 200/93                       |                                                                                                                                                                                                                                |
| SJ3418FR                                | Loop      | 5,000        | FR Nylon         | None  | 0.12 (3.0)                    | 200/93                       | Flame resistant plain backed fastener designed for sew on applications. Ideal replacement for zippers, buttons, snaps and laces. Indoor and outdoor use.                                                                       |
| SJ3419FR                                | Hook      | 5,000        | FR Nylon         | None  | 0.12 (3.0)                    | 200/93                       |                                                                                                                                                                                                                                |
| SJ3486FR                                | Hook      | 1,000        | FR Polyester     | None  | 0.13 (3.3)                    | 200/93                       | Same as above with improved water resistance over nylon product.                                                                                                                                                               |
| SJ3487FR                                | Loop      | 1,000        | FR Polyester     | None  | 0.13 (3.3)                    | 200/93                       |                                                                                                                                                                                                                                |

Standard colors: Nylon—black, white and beige; Polyester—black and white. Custom colors available upon request.

## 3M™ Hook and Loop Fasteners - Low Profile/Thin

|                         |      |    |               |   |              |        |                                                                                                                                                                                                                                            |
|-------------------------|------|----|---------------|---|--------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Acrylic Adhesive</b> |      |    |               |   |              |        |                                                                                                                                                                                                                                            |
| SJ3506                  | Hook | 25 | Polypropylene | E | 0.034 (0.84) | 158/70 | This product is 75% thinner than standard Hook and Loop. Medium temperature performance. Bonds well to medium surface energy plastics such as polycarbonate, ABS, acrylic and polystyrene. Also bonds well to a variety of other surfaces. |
| SJ3507                  | Loop | 25 | Polyester     | E | 0.034 (0.84) | 158/70 |                                                                                                                                                                                                                                            |

## 3M™ Hook and Loop Fasteners SJ3000

|                    |                            |    |                                      |      |             |        |                                                                                                                                                                                                                                                                                                             |
|--------------------|----------------------------|----|--------------------------------------|------|-------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>No Adhesive</b> |                            |    |                                      |      |             |        |                                                                                                                                                                                                                                                                                                             |
| SJ3000             | Back-to-Back Hook and Loop | 10 | Polypropylene (Hook)<br>Nylon (Loop) | None | 0.053 (1.3) | 200/93 | No stick. No mess. Simply wrap, unwrap and wrap up to 10 times without the hassles of adhesive, knotted strings, waste and cutting. Convenient and secure bundling replacement for tape, string, rubber bands, plastic wire and strapping. High temperature performance. Available in black, red and white. |

### Liners:

A - White 3 mil polyethylene film printed with "3M" Hook and Loop" in red.  
 B - Clear 3.5 mil polyolefin film with no printing.  
 C - Yellow 3.0 mil polyethylene film with no printing.  
 D - Clear 4.0 mil polypropylene film with white embossed 3M logo.  
 E - Brown 83# PCK liner printed with "3M" in green. Good for diecutting directly against liner.  
 F - Brown 83# PCK liner with no printing. Good for die-cutting directly against liner.  
 G - Silicone-treated polyolefin with 3M logo embossed.

**Footnotes:** Engaged thickness is for hook and loop with the same backcoating engaged to each other. Any of these 3M™ Loop Reclosable Fasteners can also be engaged with 3M™ Dual Lock™ Reclosable Fasteners providing a quick grab closure with high strength and limited cycle life.

**Note:** This information should be considered representative only, for help in narrowing the list of possible fasteners for further and more detailed evaluation, and should not be used for specification purposes. User is responsible for determining whether the 3M product is fit for the desired end use. Refer to specific product technical data sheets for more detailed product performance information.



From attaching chair cushions to adjusting orthopedic braces, when your product requires thousands of easy openings and secure closings, 3M™ Hook and Loop Fasteners give you choices to improve your product and production time.

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