English
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Technical Data Sheet

3M™ Loop Fastener SJ3527N

Product Description

3M™ Hook and Loop Fasteners offer advanced closure alternatives to zippers, screws, snaps, hooks and more. They offer greater design flexibility, faster product assembly, smoother and cleaner exterior surfaces and improved product performance in many applications. 3M hook and loop fasteners consist of hooks and loops which engage to form a quick fastening attachment. Simply pull the strips apart by hand to disengage.

Product Features

The woven nylon hook has flexible, self-supporting inverted j-hooks protruding up from the backing with approximately 300 hooks per square inch (46 hooks/square cm). The woven nylon loop has thousands of soft, pliable napped loops protruding above the backing, providing for thousands of openings and closings (cycles). Both the hook and loop are preshrunk to insure maximum dimensional stability and flatness. Standard colors available are black, white and beige, with several custom colors available with extended delivery times and additional costs.
SJ3527N loop is coated on the backside with a high performance rubber based pressure sensitive adhesive which allow for easy and convenient attachment to a variety of substrates, including low surface energy plastics.
Commonly paired with 3M™ Hook Fastener SJ3526N, this loop fastener can also engage with other 3M™ Hook Fasteners.

Technical Information Note

The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Typical Physical Properties

Property	Values	Additional Information
Material	Loop- Woven Nylon	
Backing	High Performance rubber based PSA	
Adhesive Type	Rubber	
Color	Black, White	
Liner Color	White	View
Test Name: Primary		
Liner	Polyethylene with red printing	

Liner Thickness	0.08 mm	

Thickness	2.3 mm	View

Test Condition: Maximum unmated without liner

Notes: Thickness depends upon the amount of compression load on the pieces.

Thickness	125 mil	View

Test Condition: Maximum unmated without liner

Notes: Thickness depends upon the amount of compression load on the pieces.

Engaged Thickness (mil)	140 mil	View

Notes: Thickness depends upon the amount of compression load on the pieces.

Engaged Thickness (mm)	3.6 mm	View

Notes: Thickness depends upon the amount of compression load on the pieces.

Liner Thickness	3 mil

Weight	0.063 g/cm²

Weight	0.015 oz/in²

Typical Performance Characteristics

Property	Values	Additional Information
90° Peel Adhesion	3.9 g/cm width	View

Substrate: Nylon Hook to Nylon Loop

Notes: 12 in/min (300 mm/min). The 90° peel has one of the mated fasteners attached to a non-anodized aluminum panel, while the other mated fastener is not attached to an adherend and is disengaged at 90° angle during the peel.

90° Peel Adhesion	2.2 lb/in width	View

Substrate: Nylon Hook to Nylon Loop

Notes: 12 in/min (300 mm/min). The 90° peel has one of the mated fasteners attached to a non-anodized aluminum panel, while the other mated fastener is not attached to an adherend and is disengaged at 90° angle during the peel.

Long Term Temp C	49 °C	View

Test Condition: Long Term (day, weeks)

Long Term Temp F	120 °F	View

Test Condition: Long Term (day, weeks)

Dynamic Tensile	7.6 N/cm²	View

Substrate: Nylon Hook to Nylon Loop

Notes: Run at 12 inches per minute

Dynamic Tensile	11 lb/in²	View

Substrate: Nylon Hook to Nylon Loop

Notes: Run at 12 inches per minute

Overlap Shear Strength	15.2 N/cm²	View

Substrate: Nylon Hook to Nylon Loop

Notes: Run at 12 inches per minute

Overlap Shear Strength	22 lb/in²	View

Substrate: Nylon Hook to Nylon Loop

Notes: Run at 12 inches per minute

Cleavage Strength	13.1 g/cm width	View

Substrate: Nylon Hook to Nylon Loop

Cleavage Strength	7.5 lb/in width	View

Substrate: Nylon Hook to Nylon Loop

T-Peel Adhesion	3.5 g/cm width	View

Substrate: Nylon Hook to Nylon Loop

Notes: Run at 12 inches per minute. The “T” peel test only measures the closure performance per ASTM D5170 and was not adhered to aluminum panels.

T-Peel Adhesion	2 lb/in width	View

Substrate: Nylon Hook to Nylon Loop

Notes: Run at 12 inches per minute. The “T” peel test only measures the closure performance per ASTM D5170 and was not adhered to aluminum panels.

Cycle Life	5000	View

Substrate: Nylon Hook to Nylon Loop

Notes: Number of closures before losing 50% of original peel strength

Product Performance	View

Notes: This guide should assist you in determining which product will adhere best to your substrate for.

Storage and Shelf Life

Shelf Life when stored in original packaging at 72°F (22°C) and 50% RH is 18 months from date of manufacture.

Automotive Disclaimer

Select Automotive Applications: This product is an industrial product and has not been designed or tested for use in certain automotive applications, such as automotive electric powertrain battery or high voltage applications, which may require the product to be manufactured in a IATF certified facility, meet a Ppk of 1.33 for all properties, undergo an automotive production part approval process (PPAP), or fully adhere to automotive design or quality system requirements (e.g., IATF 16949 or VDA 6.3). Customer assumes all responsibility and risk if customer chooses to use this product in these applications.

Bottom Matter

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Trademarks

Handling/Application Information

Directions for Use

Attachment Techniques

The following information is intended to assist the designer considering the use of 3M hook and loop fasteners. System product performance depends upon a number of factors, including the fastener (material, adhesive and area), application method, surface characteristics (material, texture and cleanliness), environmental conditions (moisture, ultraviolet and temperature exposure) and the time it is expected to support a given load. Because many of these factors are uniquely within the user's knowledge and control, it is required that the user evaluate 3M products to determine whether they are fit for a particular purpose and are suitable for the user's substrates, method of application and desired end use.

Rounding the corners, slightly recessing the product into the substrate, or providing raised edges around the Reclosable fastener can reduce the possibility of edge lifting and improve the overall appearance of the fastener on the finished product. Mechanically securing the corners of the fastener with rivets, staples, screws, etc. may also reduce the possibility of edge lifting, but may reduce the closure performance.

The two most common techniques for attaching these 3M hook and loop fasteners to various surfaces are summarized below.

Pressure Sensitive Adhesive Attachment: The use of pressure sensitive adhesives eliminates or reduces the need for sewing, solvent activation, dielectric or ultrasonic bonding or bulk adhesive bonding. This can result in simplicity, improved safety and lower installation costs. Pressure sensitive adhesive products can be applied manually or automatically using a variety of equipment choices. Contact your 3M Sales Representative to discuss automated equipment options.

Surface Preparation: Highly textured surfaces may reduce the ultimate adhesion levels and care should be given to minimize the surface texture or roughness. Adhesive backed fasteners should be applied to surfaces that are clean, dry and free of oil, grease, dust, mold release agents or surface contaminants that could reduce the adhesion. It is recommended to remove any surface contaminants that may reduce adhesion by using a method suited for the type and quantity of surface contaminants present. Isopropyl alcohol is a good general use solvent for cleaning contaminants from surfaces for example.

In exceptional cases, especially when removing silicone mold release agents or on rough, porous surfaces, it may be necessary to lightly abrade the surface, use an adhesion promoter, or surface sealer to optimize the adhesive bond to the substrate. The selection of abrasion, priming or sealing methods will depend upon the substrates and the environmental conditions the product will be exposed to during use.

Attachment Procedure: To obtain optimum bond to any surface, both the fasteners and the target surfaces should have equilibrated for a minimum of one hour at temperatures between 68°F (20°C) to 100°F (38°C) before application. The liner protecting the adhesive is removed and preferably without touching the adhesive, the fastener is applied to the substrate. Exposure of the adhesive to ambient conditions without the protective liner, before applying to the surface, should be minimized as initial adhesive tack may decrease. Flexible materials should be lying on a hard flat surface so as to permit uniform adhesive contact with the surface. Use of a rubber hand roller, press platen or similar device is recommended to ensure full adhesive contact or wet- out with the substrate surface. Approximately 4.5 pounds of force per square inch, (310 grams per square centimeter) is recommended to increase adhesive contact, improving bond strength. For all adhesive applications, it is important to ensure that the edges are rolled down to reduce the chance of edge lifting.

Plain backed

The plain backed 3M hook and loop fasteners are most commonly sewn into their applications. Liquid or hot melt adhesives and staples are other forms of attachment that can be utilized.

Sewing: Although the selvedge edge was initially developed for stitching on, customers often find that they get better anchorage when stitching through the 3M hook and

loop portions of the fastener – this may be application dependent. The type of thread and stitch type is also best determined based on individual application, however, the fastener should be stitched on all edges for the best seam strength. Typically, special machine adjustments

are not necessary when using our 3M hook and loop fasteners

References

Property	Values
3m.com Product Page	https://www.3m.com/3M/en_US/p/d/b40071854/
Safety Data Sheet SDS	https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=SJ3527N

Family Group

Link Tags:

SJ3401 SJ3402 SJ3522 SJ3523 SJ3526N SJ3527N SJ3530 SJ3531 SJ3571 SJ3572 SJ3532N SJ3533N

Products	Material	Backing	Adhesive Type	Liner	Thickness	Long Term Temp C	Long Term Temp F	Liner Color	Color	Liner Thickness
SJ3531	Loop-Woven Nylon	General Purpose rubber based PSA	Rubber	Polypropylene	3.2 mm	32 °C	90 °F	N/A	N/A	N/A
SJ3401	Loop-Woven Nylon	No Adhesive Sew on	N/A	None	2 mm	93 °C	N/A	N/A	Black, White	N/A
SJ3402	Hook-Woven Nylon	No Adhesive Sew on	N/A	None	2 mm	93 °C	N/A	N/A	Black, White	N/A
SJ3532N	Hook-Woven Nylon	Rubber based PSA	Rubber	White Polypropylene	2.03 mm	38 °C	100 °F	N/A	N/A	0.08 mm
SJ3571	Loop-Woven Nylon	N/A	Acrylic	Polyolefin with embossed 3M logo	3.2 mm	93 °C	N/A	Clear	Black, White	0.1 mm
SJ3526N	Hook-Woven Nylon	High Performance rubber based PSA	Rubber	Polyethylene with red printing	2.4 mm	49 °C	120 °F	N/A	N/A	N/A
SJ3572	Hook-Woven Nylon	High Performance Acrylic PSA	Acrylic	Polyolefin with embossed 3M logo	2.4 mm	93 °C	200 °F	N/A	N/A	N/A

SJ3522	Hook-Woven Nylon	Plasticizer resistant acrylic PSA	Acrylic	Non printed polyolefin film	2.4 mm	70 °C	158 °F	N/A	N/A	N/A
SJ3530	N/A	General Purpose rubber based PSA	Rubber	Polypropylene	2.4 mm	32 °C	N/A	White	Black, White	0.08 mm
SJ3533N	Loop-Woven Nylon	Rubber based PSA	Rubber	White Polypropylene	3.05 mm	38 °C	100 °F	N/A	N/A	0.08 mm
SJ3523	Loop-Woven Nylon	Plasticizer resistant acrylic PSA	Acrylic	Non printed polyolefin film	3.2 mm	70 °C	158 °F	N/A	N/A	N/A
SJ3527N	Loop-Woven Nylon	High Performance rubber based PSA	Rubber	Polyethylene with red printing	2.3 mm	49 °C	120 °F	N/A	N/A	N/A

ISO Statement

This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001: 2000 and ISO/TS 16949:2002 standards.

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