



# 3M™ Dual Lock™ Reclosable Fasteners with Pressure Sensitive Adhesive

## Technical Data Sheet

### Description

3M™ Dual Lock™ Reclosable Fasteners are positive-locking, blind fasteners designed for attaching automotive trim components. The products feature mushroom-shaped polyolefin stems that snap together, forming a high tensile closure. Dual Lock reclosable fasteners with pressure sensitive adhesive are backed with 3M™ Acrylic Foam Tapes, which have been used for numerous automotive interior and exterior applications and feature excellent creep resistance. Dual Lock reclosable fasteners with pressure sensitive adhesive provide a firm bond to a wide variety of surfaces.



Dual Lock reclosable fasteners overcome the often-difficult alignment and installation problems of screws and hidden fasteners. They offer simple installation with no additional tools required. Dual Lock reclosable fasteners are used primarily to secure rigid and semi-rigid surfaces. Dual Lock reclosable fasteners can replace conventional mechanical fasteners in a wide range of assembly and attachment applications where reclosability is desired.



Typical applications include automotive interior and exterior trim attachment such as vehicle headliners, accessories and equipment, window and door trim panels, vibration and sound dampening control, CHMSL—Center High Mounted Stop Light—cover plates, center console flanges, interior trim, and sunroof rings.

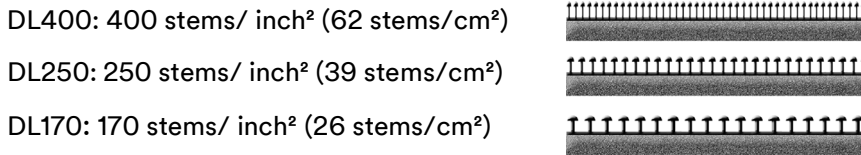
Since product performance will depend on actual conditions within a specific application, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular material purpose and suitable for the user's method of application.

Additional product features include:

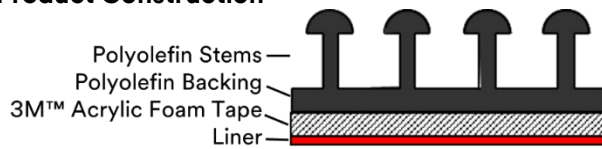
- **Easy alignment of parts:** 3M Dual Lock fasteners engage in any orientation. The stems slide over each other until they are engaged with a firm pressure and an audible signal, eliminating concerns about misalignment or premature engagement.
- **Reclosability:** 3M Dual Lock fasteners can be opened and re-closed in high cycle applications.
- **Blind Attachment:** 3M Dual Lock fasteners can be attached on the rear side of the interior part, where it won't interrupt the show surface.
- **Appearance:** able to attach on the backside of a trim piece allowing for blind fastening and an uninterrupted show surface.
- **Vibration resistance:** dramatically reduces the rattling and vibration of components.
- **Ease of assembly:** does not require any special tools or equipment.
- **Multiple attachment methods:** available in numerous forms, allowing for the ability to be attached to a variety of surface, using different methods.
- **Adjustable engagement and disengagement forces:** provides a range of engagement and disengagement forces that can be achieved by combining the different stem densities.

### Stem Density Types

Dual Lock fasteners are available in three different stems densities:



### Product Construction



### Physical Properties

The following technical information and data should be considered representative or typical only and should not be used for specification purposes. For more information and help selecting a 3M product for an application, please contact a 3M application engineering representative.

Product Number	Stem Type	Weight g/cm <sup>2</sup> oz/in <sup>2</sup>	Stem and Backing Material	Adhesive System	Adhesive Color	Adhesive Thickness	Total Thickness Unmated +/- 10%	Thickness Code	Liner
SJ3787	250	0.132 g/cm <sup>2</sup> (0.030 oz/in <sup>2</sup> )	Black, polyolefin	DS6	Gray	0.40 mm (0.015 inch)	3.0 mm (0.12 inch)	15	Red, 0.145mm (5.7 mil) non-silicone treated polyolefin liner
SJ3785	400	0.114 g/cm <sup>2</sup> (0.026 oz/in <sup>2</sup> )							
SJ3752	170	0.132 g/cm <sup>2</sup> (0.030 oz/in <sup>2</sup> )			Gray	0.8mm (0.031 inch)	3.4 mm (0.14 inch)	31	
SJ3781	250	0.141 g/cm <sup>2</sup> (0.032 oz/in <sup>2</sup> )							
SJ3751	400	0.145 g/cm <sup>2</sup> (0.033 oz/in <sup>2</sup> )			White	3.0 mm (0.118 inch)	5.5 mm (0.22 inch)	118	
SJ3758	250	0.24 g/cm <sup>2</sup> (0.055 oz/in <sup>2</sup> )							

### Rolls Lengths and Widths

3M™ Dual Lock™ Reclosable Fastener Roll Goods with Pressure Sensitive Adhesive are available in a standard roll length of 50 yards (45.7 meters). Minimum width is ½" (12.7 mm).

Product	Standard Widths +/- 1/16" (+/- 1.6mm)					
	0.5 in (12.7 mm)	0.75 in (19 mm)	1 in (25.4 mm)	1.5 in (38.1 mm)	2 in (50.8 mm)	6 in (152.4 mm)
SJ3758			•		•	•
SJ3787			•			•
SJ3785			•		•	•
SJ3752	•	•	•		•	•
SJ3781	•	•	•	•	•	•
SJ3751	•	•	•		•	•

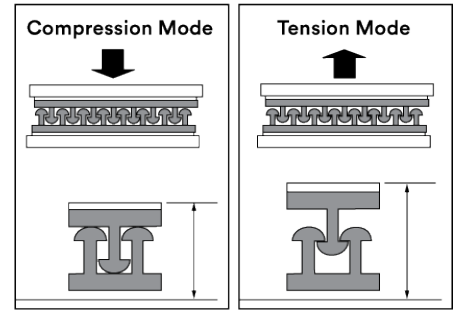
**Product Thickness Chart**

This is a stack-up thickness guide to assist design engineers in selecting Dual Lock reclosable fastener products to meet their gap needs.

Find the product thickness codes of the two parts you want to combine in the previous selection charts. Then find the matching product thickness codes along the two axes of the chart below and follow the row/column to the point where they intersect. Where the row and column intersect is the engaged thickness of the two-piece combination of the selected Dual Lock reclosable fasteners. There are two thicknesses listed; one is in tension and the other is compression (as shown in the figures on the right).

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

Dual Lock reclosable fastener stack-up engaged thickness



Typical Stack-Up Engaged Thickness (mm): Tension (T) and Compression (C) Modes +/- 10%										
Product #1 Thickness Code	Engaged Mode	Product #2 Thickness Code								
		15	31	84	99	100	104	110	118	134
15	Tension	4.94	5.34	6.67	7.06	7.08	7.18	7.34	7.54	7.94
	Compression	4.38	4.78	6.12	6.5	6.52	6.62	6.78	6.98	7.39
31	Tension		5.74	7.07	7.45	7.48	7.58	7.73	7.94	8.34
	Compression		5.18	6.51	6.9	6.92	7.02	7.18	7.38	7.78
84	Tension			8.41	8.79	8.81	8.92	9.07	9.27	9.68
	Compression			7.85	8.23	8.26	8.36	8.51	8.71	9.12
99	Tension				9.17	9.19	9.30	9.45	9.65	10.06
	Compression				8.61	8.64	8.74	8.89	9.09	9.50
100	Tension					9.22	9.32	9.47	9.68	10.08
	Compression					8.66	8.76	8.92	9.12	9.53
104	Tension						9.42	9.58	9.78	10.19
	Compression						8.86	9.02	9.22	9.63
110	Tension							9.73	9.93	10.34
	Compression							9.17	9.37	9.78
118	Tension								10.13	10.72
	Compression								9.57	10.16
134	Tension									10.95
	Compression									10.39

**Performance Properties**

3M understands that development of automotive applications is typically driven by specification requirements and performance. Each OEM has their own unique criteria and 3M continues to develop products to meet those demands. Please contact your 3M application engineer for support and to obtain specific test data.

Typical Initial System Dynamic Tensile Strength	3M™ Dual Lock™ Reclosable Fastener engaged to 3M™ Dual Lock™ Reclosable Fastener			
	Type 170 to Type 250	Type 250 to Type 250	Type 170 to Type 400	Type 250 to Type 400
Initial Engagement: N/cm <sup>2</sup> (lbf/in <sup>2</sup> )	10 N/cm <sup>2</sup> (14 lbf/in <sup>2</sup> )	21 N/cm <sup>2</sup> (30 lbf/in <sup>2</sup> )	19 N/cm <sup>2</sup> (27 lbf/in <sup>2</sup> )	33 N/cm <sup>2</sup> (48 lbf/in <sup>2</sup> )
Initial Disengagement: N/cm <sup>2</sup> (lbf/in <sup>2</sup> )	28 N/cm <sup>2</sup> (41 lbf/in <sup>2</sup> )	34 N/cm <sup>2</sup> (49 lbf/in <sup>2</sup> )	49 N/cm <sup>2</sup> (72 lbf/in <sup>2</sup> )	71 N/cm <sup>2</sup> (103 lbf/in <sup>2</sup> )

Typical Initial System Dynamic Peel and Cleavage Strength	3M™ Dual Lock™ Reclosable Fastener engaged to 3M™ Dual Lock™ Reclosable Fastener			
	Type 170 to Type 250	Type 250 to Type 250	Type 170 to Type 400	Type 250 to Type 400
Cleavage Strength (Rigid to Rigid) 5.7 cm (2.25 inch) long piece N/cm (lbf/in)	11.1 N/cm (19.4 lbf/in)	18.1 N/cm (31.6 lbf/in)	18.7 N/cm (32.8 lbf/in)	45.4 N/cm (79.6 lbf/in)
"T" Peel (Flexible to Flexible) N/cm (lbf/in)	0.7 N/cm (1.0 lbf/in)	0.9 N/cm (1.4 lbf/in)	1.5 N/cm (2.1 lbf/in)	1.9 N/cm (2.5 lbf/in)
90° Peel (Flexible to Rigid) N/cm (lbf/in)	3.8 N/cm (6.7 lbf/in)	2.1 N/cm (3.6 lbf/in)	3.2 N/cm (5.5 lbf/in)	1.5 N/cm (2.6 lbf/in)

**Temperature Performance**

Typical test results show that all suggested combinations of 3M™ Dual Lock™ Reclosable Fastener types will support in static tensile or shear loads up to 1.0 kg/in<sup>2</sup> (2.2 lb/in<sup>2</sup>) across a temperature range of -20°F to 200°F (-12°C to 93.3°C).

Note: Test data refers to the Dual Lock Reclosable Fastener engagement to itself. The type of attachment system used can affect the performance results (i.e. such as the adhesive attachment system).

**Additional Performance Characteristics**

<b>Resistance to Chemicals:</b>	The polypropylene backing, stems and mushroom top should resist attack by most common solvents and alkaline solutions. Tests should be conducted by the user to evaluate the solvents and exposure time expected for the actual application.
<b>Flammability Resistance:</b>	Dual Lock™ reclosable fasteners pass FMVSS 302 flammability tests when attached to a thin metal panel.
<b>Resistance to Environmental Exposure:</b>	Temperatures between -29°C (-20°F) and 93°C (200°F) should have minimal effect on closure strength. To maintain performance when exposed for extended periods of sunlight or ultraviolet radiation, these products should be placed between two opaque or UV-resistant surfaces. Specific testing under the expected environmental conditions is recommended.
<b>Water or Humidity:</b>	Closure strength should not be affected by prolonged exposure to water or humidity.

**Maximum Suggested Static Loading**




Laboratory testing indicates that 1 in<sup>2</sup> piece of Dual Lock reclosable fastener bonded to a high surface energy substrate will hold a maximum static load of 2.2 pounds at 220°F for 10,000 minutes - Note that these tests were performed with only one force interacting on the sample. These tests do not take into consideration the real-world conditions often encountered during normal vehicle operation over the life of a vehicle.

Factors to consider for real world use include:

- Additional stresses/forces induced under normal driving conditions (i.e. vibration, humidity, etc.)
- Uneven gapping caused by variations in the application and the assembly of the vehicle or application design
- Extended temperature and humidity cycling over the life of the vehicle
- Misalignment of the mating parts resulting in less engagement area
- A warped mounting surface causing less surface contact with the adhesive

The nature of the 3M™ Acrylic Foam Tapes used on Dual Lock reclosable fasteners should be considered. 3M Acrylic Foam Tapes are viscoelastic by nature, and their strength and stiffness are a function of their thickness and the rate at which they are stressed.

**Recommended maximum loading of a 1 inch<sup>2</sup> piece of Dual Lock Reclosable Fastener with PSA backing**

Tensile Static Force	Shear Static Force	Cleavage Static Force
		
<p>Suggested Static Loading (per 1 in<sup>2</sup>) = 1.1 lbs (500 grams)</p>	<p>Suggested Static Loading (per 1 in<sup>2</sup>) = 0.7 lbs (333 grams)</p>	<p>Suggested Static Loading (per 1 in<sup>2</sup>) = 0.6 lbs (250 grams)</p>

Note: These suggestions should be considered a starting point for a design and are influenced by tape thickness and area. It is important to design in additional safety factors for real world conditions.

**Shelf Life**

Three years from date of manufacturing when stored at 4°C-38°C (40°F-100°F) and 30-70% relative humidity. The optimum storage conditions are 22°C (72°F) and 50% relative humidity.

**Regulatory Information**

Please refer to the product label and Safety Data Sheet (SDS) for health and safety information before using. Observe proper handling precautions as outlined in the SDS, which is available on request or at [www.3M.com/msds](http://www.3M.com/msds).

The product is published as a material entry and is available for access on [www.mdsystem.com](http://www.mdsystem.com). For product IMDS I.D. number, email requests to [3M-IMDSrequest@mmm.com](mailto:3M-IMDSrequest@mmm.com).

**Contact Information**

The information provided in this technical document is intended as a guide for this product. For more information or help in selecting a 3M product for an application, please contact your 3M application engineering representative or [connect with a 3M expert](#).

Technical Information: Technical information, guidance, and other statements provided by 3M are based upon records, tests, or experience that 3M believes to be reliable, but the accuracy, completeness, and representative nature of such information is not guaranteed. Such information is intended for people with knowledge and technical skills sufficient to assess and apply their own informed judgment to the information. No license to any intellectual property rights is granted or implied with respect to this technical information. Product Selection and Use: Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. Customer is solely responsible for evaluating the product and determining whether it is appropriate and suitable for customer's application, including conducting a workplace hazard assessment, reviewing all applicable regulations and standards, and reviewing the product label and use instructions. Failure to properly evaluate, select, and use a 3M product in accordance with instructions or to meet all applicable safety regulations may result in injury, sickness, death, and/or harm to property. Warranty, Limited Remedy, and Disclaimer: Unless a different warranty is specifically stated on the applicable 3M product packaging or product literature (in which case such warranty governs), 3M warrants that each 3M product meets the applicable 3M product specification at the time 3M ships the product. 3M MAKES NO OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTY OR CONDITION OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ARISING OUT OF A COURSE OF DEALING, CUSTOM, OR USAGE OF TRADE. If a 3M product does not conform to this warranty, the sole and exclusive remedy is, at 3M's option, replacement of the 3M product or refund of the purchase price.



Automotive and Aerospace Solutions Division  
 3M Headquarters  
 St. Paul, MN 55144-1000  
 Phone 1-800-328-1684  
 Web [www.3M.com/autosolutions](http://www.3M.com/autosolutions)  
 Support [https://www.3m.com/3M/en\\_US/oem-tier-us/support/](https://www.3m.com/3M/en_US/oem-tier-us/support/)

3M and Dual Lock are trademarks of 3M Company  
 © 3M 2025. All rights reserved.