SNAPSHOOT
ENGINEERED FOR A SAFER TOMORROW

현장을 이해하고, 필요한 솔루션을 연결합니다.

산업안전 · 추락방지 시스템
산업용 소재 · 건축자재
제품 제안부터 공급·시공·설치·교육까지



COMPANY INFORMATION

스냅슛 (SNAPSHOOT)

ADDRESS (15431) 경기도 안산시 단원구 풍전로 37-9 트리플렉스 301동 118호
TEL 0507-1374-9229
FAX 0504-481-6749
E-MAIL bkkim@snapshoot.co.kr

TECHNICAL DOCUMENTS

인증서 · 데이터시트 · 기술자료

제품의 규격과 성능, 인증 및 적용 조건을 확인하기 위한 자료입니다.

ABOUT SNAPSHOOT

제품 공급을 넘어, 현장에 맞는 해결책으로

스냅슛은 산업현장의 작업 환경과 요구 조건을 바탕으로
적합한 제품과 시스템을 제안합니다. 현장 실사를 통해 설치 조건을 확인하고,
공급부터 시공·설치 및 사용 교육까지 필요한 과정을 함께합니다.

추락방지 시스템

안전대부착설비 · 수평·수직 라이프라인
레일 시스템 · 리지드 포스트

밀폐공간 진입·구조 솔루션

데빗암 · 삼각대 · 구조용 윈치
윈치 안전블록 · 구조장비

산업안전 보호구

전신형 안전대 · 랜야드 · 안전블록
작업 환경에 맞춘 개인보호구

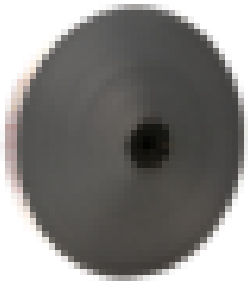
산업용 소재·건축자재

산업용 테이프 · 접착제 · 기능성 소재
구조용 스크류 · 목조건축 자재

SNAPSHOOT
ENGINEERED FOR A SAFER TOMORROW

홈페이지 바로가기 →
문서 라이브러리 바로가기 →
시공사례 바로가기 →
문의하기 →

본 페이지는 스냅슛의 자료 제공 안내용 표지입니다. 첨부된 인증서 및 기술자료의 발행 주체, 인증 대상과 적용 범위는 해당 원문을 기준으로 확인해 주세요.



English-US

Last Revision Date: September, 2024

Supersedes: June, 2024

Technical Data Sheet

3M™ Dual Lock™ Reclosable Fastener SJ3552

Product Details

Product Description

3M™ Dual Lock™ Reclosable Fasteners are positive locking, hidden fasteners designed for use in a variety of attachment solutions. They consist of continuous strips of polyolefin stems with a mushroom shaped top protruding up from the backing. When snapped together the mushroom shaped caps interlock producing a strong reliable Fastener.

The standard Dual Lock fasteners are available in three different stem densities (170, 250 and 400) referring to the approximate number of stems per square inch. (26, 39, 62 stems per square centimeter) By inter-locking different stem density combinations you can create the strength that suits your application; more total stems give higher strength. The Dual Lock Reclosable fasteners can be mated in the following combinations of increasing closure strength: Type 170 to Type 250, Type 170 to Type 400, Type 250 to Type 250 and Type 250 to Type 400. We do not recommend using the Type 170 to 170 because it does not have enough strength for a good connection. We do not recommend using the Type 400 to 400 because it is too strong and may cause stems and heads to rip out rendering the fastener no longer reclosable.

The Dual Lock Low Profile has one stem density of approximately 705 stems per square inch and they interlock to themselves. The low profile products are not intended to mate to the standard size Dual Lock.

There are a variety of pressure sensitive adhesives available with Dual Lock to cover most application needs. The pressure sensitive adhesive makes the Dual Lock easy to use, simply remove the liner, place the Dual Lock and apply firm consistent pressure to assure good contact with the substrate you are adhering. We also offer non-adhesive backed Dual Lock for applications where the PSA does not meet your needs.

Product Features

•Easy Alignment: Dual Lock fasteners engage in any direction or position. The mushroom stems slide into position until they are engaged by snapping together applying firm pressure, this eliminates concerns about misalignment or spontaneous engagement.
•Positive Locking: Dual Lock fasteners engage/fasten with an audible snap and detectable movement assuring complete and secure closure.
•Reclosability: Dual Lock fasteners can be opened and closed for multiple closure applications (high cycle life).
•Blind Attachment: Dual Lock fasteners can be attached on the backside of substrate (i.e. trim piece) where it will not interrupt the show surface.
•Rattle-Free: Dual Lock fasteners will not rattle loose.
•Ease of Assembly: Dual Lock fasteners can be used to attach components before they enter the final assembly plant, reducing the number of parts and the assembly time. No tools are required.
•Adjustable Strength: By selecting different combinations of the various stem densities of the Dual Lock the fastener can be designed to meet the strength needs of the designer.
•Product Forms: Dual Lock fasteners come in a variety of forms: Backed with Pressure Sensitive adhesive, Non-woven, Rigid backed, Die Cut Shapes, and low profile.
•Attachment Methods: The wide varieties of Dual Lock fasteners allow a design engineer flexibility to be able use and attach Dual Lock to just about any substrate or application. Peel and stick pressure sensitive adhesive backed is quick and easy yet strong and secure. Non-woven backed can be used with a variety of adhesive choices such as hot melt, liquid, epoxies, sealants, etc. We have parts that can be attached with a screw or rivet; rigid and plain backed for developing your own special device.

General Information

Pressure Sensitive Adhesive backed product
Product Family: Acrylic PSA VHB conformable type backing for medium to high surface energy attachment

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

Attribute Name	Value
Color	Black
Adhesive Type	Acrylic (White)
Stems	26 Stems/cm² (170 Stems/in²)
Thickness	3.51 mm (138 mil)
Engaged Thickness	5.74 mm (226 mil) [1]
Liner	Silicone treated Polyolefin with Red printing
Primary Liner Color	Clear
Liner Thickness	0.1 mm (4 mil)

[1] Thickness depends upon the amount of compression load on the pieces.

Typical Performance Characteristics

90° Peel Adhesion

Temperature: 23 °C (73 °F)
Backing: Flexible from Rigid

Substrate	Value
Type 170 to 250	3.2 N/cm (1.8 lb/in width) [1]
Type 170 to 400	5.4 N/cm (3.1 lb/in width) [1]
Type 250 to 250	8.1 N/cm (4.1 lb/in width) [1]
Type 250 to 400	8.1 N/cm (4.6 lb/in width) [1]

[1] 304 mm/min (12 in/min)

Overlap Shear Strength

Substrate	Value
Type 170 to 250	9.8 N/cm² (14 lb/in²)
Type 170 to 400	14.5 N/cm² (21 lb/in²)
Type 250 to 250	15 N/cm² (22 lb/in²)
Type 250 to 400	41.3 N/cm² (59 lb/in²)

T-Peel Adhesion

Substrate	Value
Type 170 to 250	1.2 N/cm (0.7 lb/in width) [1]
Type 170 to 400	2.5 N/cm (1.4 lb/in width) [1]
Type 250 to 250	3.3 N/cm (1.9 lb/in width) [1]
Type 250 to 400	2.6 N/cm (1.5 lb/in width) [1]

[1] Flexible from Flexible

Attribute Name	Substrate	Value
Dynamic Tensile (Disengage)	Type 170 to 250	18.5 N/cm² (27 lb/in²)
Dynamic Tensile (Disengage)	Type 170 to 400	29.6 N/cm² (43 lb/in²)
Dynamic Tensile (Disengage)	Type 250 to 250	29.6 N/cm² (43 lb/in²)
Dynamic Tensile (Disengage)	Type 250 to 400	41.4 N/cm² (60 lb/in²)
Dynamic Tensile (Engage)	Low Profile to Low Profile	18.5 N/cm² (27 lb/in²)
Dynamic Tensile (Engage)	Type 170 to 250	9 N/cm² (13 lb/in²)
Dynamic Tensile (Engage)	Type 170 to 400	14.5 N/cm² (21 lb/in²)

Attribute Name	Substrate	Value
Dynamic Tensile (Engage)	Type 250 to 250	15.2 N/cm² (22 lb/in²)
Dynamic Tensile (Engage)	Type 250 to 400	21.4 N/cm² (31 lb/in²)

Attribute Name	Value
Long Term Temperature Resistance	93 °C (200 °F) [1]

[1] Long Term (day, weeks)

Attribute Name	Substrate	Value
Cleavage Strength	Type 170 to 400	35 N/cm (20 lb/in width) [1]
Cleavage Strength	Type 250 to 250	42 N/cm (24 lb/in width) [1]
Cleavage Strength	Type 250 to 400	56 N/cm (32 lb/in width) [1]
Cleavage Strength	Type 170 to 250	21 N/cm (12 lb/in width) [1]
Cycle Life	Type 170 to 250	1,000 [2]
Cycle Life	Type 170 to 400	1,000 [2]
Cycle Life	Type 250 to 250	1,000 [2]
Cycle Life	Type 250 to 400	1,000 [2]

[1] Rigid backed from Rigid backed

[2] Number of closures before losing 50% of original peel strength

Attribute Name	Value
Note	The following technical information and data is intended as a guideline to assist customers in selecting 3M™ Reclosable Fasteners for further evaluation. This technical information is not product release specifications or standards. Unless stated differently, the typical system performance and product properties were obtained using specific test methods under controlled laboratory conditions of 72°F ± 5°F and 50% ± 10% relative humidity. The user is responsible for evaluating 3M reclosable fasteners under expected use conditions to ensure suitable performance for the intended application. These are typical values which were gathered from testing the PSA backed materials. Similar values can be expected when the Dual Lock is held securely in a rigid fashion. Tests were run at 12 inches per minute

Design Considerations

• As a general rule, four square inches of fastener area per pound of static tensile or shear load to be supported is suggested as a starting point for evaluation. More or less area may be needed depending on specific conditions or end use applications. Type 250 Dual Lock Reclosable fasteners less than 0.75" (19 mm) width should not be engaged to other type 250 Dual Lock Reclosable fastener as low disengagement values may occur.
• Whenever possible design one side of the Dual Lock reclosable fasteners to be larger than the mating side. This will allow for variability or mismatch in Dual lock alignment positions, and ensure 100% fastening area contact. Another approach would be to design two rectangular shaped fastener pieces so that they can be engaged in a cross web/perpendicular pattern (crossed).
• Dual Lock strength is proportional to the fastening contact area, and the number of stems in combination used. More stems and more Dual Lock used gives you more strength, less stems combined and using less Dual Lock will give you

less strength.
• Dual Lock disengagement strength/performance is strongest in direct tensile. Peel/cleavage mode is where it is most easily removed.
• Final product performance depends upon a combination of factors: the substrate and its surface characteristics, the fastener selected, the application method and conditions, the time and environmental conditions required for the application. Because these factors are unique to each application, the user must evaluate Dual Lock and do any testing required to determine Dual Lock's suitability for the user's desired end use.

Storage and Shelf Life

Store under normal conditions of 16° to 27°C (60° to 80°F) and 40 to 60% relative humidity in the original packaging, out of direct sunlight. For best performance, use this product within 24 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.

Information

Technical Information: The technical information, guidance, and other statements contained in this document or otherwise 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 under any 3M or third party intellectual property rights is granted or implied with this 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. As a result, 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 and reviewing all applicable regulations and standards (e.g., OSHA, ANSI, etc.). Failure to properly evaluate, select, and use a 3M product and appropriate safety products, 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 IMPLIED 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, then the sole and exclusive remedy is, at 3M's option, replacement of the 3M product or refund of the purchase price.

Limitation of Liability: Except for the limited remedy stated above, and except to the extent prohibited by law, 3M will not be liable for any loss or damage arising from or related to the 3M product, whether direct, indirect, special, incidental, or consequential (including, but not limited to, lost profits or business opportunity), regardless of the legal or equitable theory asserted, including, but not limited to, warranty, contract, negligence, or strict liability.

Disclaimer: 3M industrial and occupational products are intended, labeled, and packaged for sale to trained industrial and occupational customers for workplace use. Unless specifically stated otherwise on the applicable product packaging or literature, these products are not intended, labeled, or packaged for sale to or use by consumers (e.g., for home, personal, primary or secondary school, recreational/sporting, or other uses not described in the applicable product packaging or literature), and must be selected and used in compliance with applicable health and safety regulations and standards (e.g., U.S. OSHA, ANSI), as well as all product literature, user instructions, warnings, and limitations, and the user must take any action required under any recall, field action or other product use notice. Misuse of 3M industrial and occupational products may result in injury, sickness, or death. For help with product selection and use, consult your on-site safety professional, industrial hygienist, or other subject matter expert. For additional product information, visit www.3M.com.

ISO Statement

This product was manufactured under a 3M quality system registered to ISO 9001 standards.

3M™ Industrial Adhesives and Tapes Division
3M Center, St. Paul, MN 55144-1000
3M.com/iatd

3M and Dual Lock are trademarks of the 3M Company.
©3M 2024 (9/24)