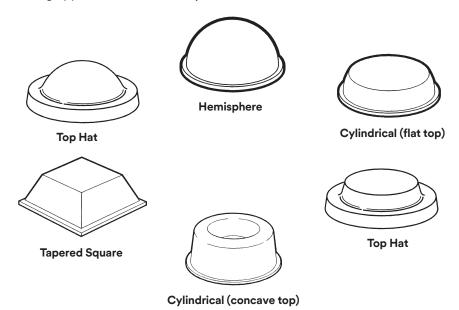


Product Description

3M™ Bumpon™ Protective Products Molded Shapes - Colored and Clear Series are pressure-sensitive. adhesive-backed polyurethane products. They can be used as feet, stops, spacers, and protectors in many applications.

The urethane is a durable, resilient elastomer. The aggressive, high tack, pressure sensitive adhesive is protected with a release liner making application fast and easy.



Features

All 3M™ Bumpon™ Protective Products feature a urethane composition which exhibits:

- Excellent skid resistance
- Long aging resiliency will not crack or harden
- Abrasion resistance
- Resistance to marring and staining

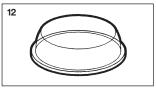
Application Ideas

Use almost anywhere slamming, scratching, nicking, scuffing, marring, sliding, vibration, or noise could be a problem for your product.

- **Feet** on the bottom of small appliances, desk top or handheld electronic devices, electronic cabinetry, telephones, keyboards, foot pedals, scales, clocks, speakers, dispensers, and computers.
- Stops for cabinet doors, lids, and drawers.
- Spacers for picture frames to provide alignment; for electronic and automotive applications as an aid in assembly.
- Protectors to prevent damage in shipping, and keep parts from direct contact with each other.

3M™ Bumpon™ Protective Products

Molded Shape Number



Product Number

Colors

Width inches (mm) Height inches (mm) Pad Format

Bumpon SJ5012, SJ5312*, SJ5412**

Black, Brown, White, Gray, Transparent*, True White**

0.50 (12.7) 0.14 (3.5) 7×8 (56)

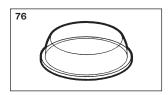
44

Cylindrical Shapes (with flat tops)

Bumpon SJ5744, SJ5344*

Black, Transparent*

0.75 (19.1) 0.16 (4.1) 4×10 (40)



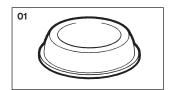
Bumpon SJ5076, SJ5376*

Black, Transparent*

0.315 (8.0) 0.110 (2.8) 8×7 (56)

Cylindrical Shapes (with concave tops)

Molded Shape Number



Product Number

Colors Width inches (mm) Height inches (mm) Pad Format

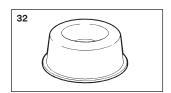
Bumpon SJ5001

Black 0.50 (12.7) 0.14 (3.5) 5×8 (40)



Bumpon SJ5009, SJ5309*

White, Gray, Brown, Black Transparent* 0.88 (22.3) 0.40 (10.1) 3×8 (24)



Bumpon SJ5532

Gray, Black 1.88 (47.7) 0.66 (16.7) Separate Parts

Molded Shape Number



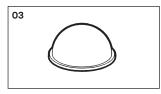
Product Number

Colors
Width inches (mm)
Height inches (mm)
Pad Format

Bumpon SJ5302*, SJ5402**

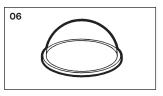
Transparent*, True White**
0.312 (7.9)
0.085 (2.2)
8×18 (144)

Hemispherical Shapes



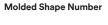
Bumpon SJ5003*

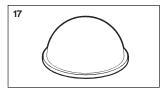
Black, Brown, Gray, Transparent* 0.44 (11.1) 0.20 (5.0) 8×7 (56)



Bumpon SJ5306*, SJ5406**

Transparent*, True White**
0.375 (9.5)
0.150 (3.8)
6×8 (48)



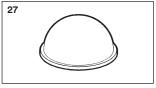


Product Number

Colors Width inches (mm) Height inches (mm) Pad Format

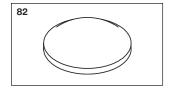
Bumpon SJ5017, SJ5317*

White, Gray, Black, Transparent* 0.75 (19.0) 0.38 (9.6) 4×10 (40)



Bumpon SJ5027, SJ5327*

White, Gray, Brown, Black, Transparent* 0.63 (16.0) 0.31 (7.9) 5×8 (40)



Bumpon SJ5382*

Transparent* 0.25 (6.4) 0.075 (1.9) 8×18 (144)

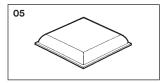
Note: All dimensions ±0.02 inches or ±0.5 mm measured without the adhesive liner.

Important: Some Bumpon molded shapes listed (or specific color versions) may require special minimum order quantities. Consult your local 3M representative or our website: www.3M.com/Bumpons.

^{*}Bumpon SJ5300 series identifies transparent products. **Bumpon SJ5400 series identifies true white products.

3M™ Bumpon™ Protective Products

Molded Shape Number



Product Number Bumpon SJ5705, SJ6105

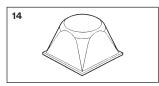
 Colors
 Black

 Width inches (mm)
 1.275 (32.4)

 Height inches (mm)
 0.250 (6.4)

 Pad Format
 3×3 (9)

Molded Shape Number



Product Number Bumpon SJ5514

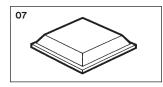
 Colors
 White, Gray, Black

 Width inches (mm)
 0.81 (20.6)

 Height inches (mm)
 0.52 (13.1)

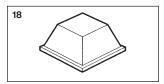
 Pad Format
 4×1 (4)

Tapered Square Shapes



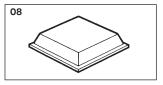
Bumpon SJ5007, SJ5307*

Black, White, Transparent* 0.413 (10.4) 0.98 (2.5) 6×9 (54)



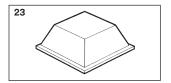
Bumpon SJ5018, SJ5318*

White, Gray, Brown, Black, Transparent* 0.50 (12.7) 0.23 (5.8) 8×10 (80)



Bumpon SJ5008, SJ5308*

White, Gray, Black, Transparent* 0.50 (12.7) 0.12 (3.1) 8×10 (80)



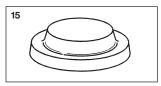
Bumpon SJ5023, SJ5323*

White, Gray, Brown, Black, Transparent* 0.81 (20.5) 0.30 (7.6) 4×9 (36)

Note: All dimensions ±0.02 inches or ±0.5 mm measured without the adhesive liner.

Top Hat and Continuous Strip Shapes

Molded Shape Number



Product Number Bumpon SJ6115 - Top Hat

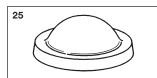
 Colors
 Black

 Diameter of Brim, inches (mm)
 0.625 (15.9)

 Height of Brim, inches (mm)
 0.093 (2.36)

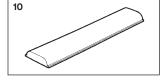
 Total Height, inches (mm)
 0.187 (4.75)

 Form
 5×8 (40)



Bumpon SJ6125 - Top Hat

Black 0.625 (15.9) 0.093 (2.36) 0.250 (6.35) 5×8 (40)



Bumpon SJ5510 - Continuous Strip*

White, Gray, Black, Brown Width, inches (mm): 0.50 (12.7) Height, inches (mm): 0.15 (3.88)

50' rolls, 5 rolls per case

Note: Dimensions for Bumpon SJ6115 and Bumpon SJ6125 ±0.005 inches (±0.13 mm) for diameter ±0.015 inches (±0.38 mm) for height measured without adhesive liner. Bumpon Top Hat products were created as an optional, non-skid foot shape, to be used in a recess (see page 7). They provide high resistance to removal, knock-off or shearing, when used in conjunction with a recessed location.

*Continuous molded strip can be cut by the customer to a specific length. The surface has lines that appear every 9" on the strip.

Important: Some Bumpon molded shapes listed (or specific color versions) may require special minimum order quantities. Consult your local 3M representative or our website: www.3M.com/Bumpons.

Special Products

Custom Shape and Color

3M can match most colors and customize shapes to your specifications. 3M has over 100 available standard and custom molded shapes. Electronic format (CAD and PDF) drawings are available on request.

Special Easy Strip Packaging

Packaged into strips or die cut and perforated pads can help simplify some assembly operations. Product currently available:

- 3M™ Bumpon™ Protective Product SJ5518 die cut perforated on pads of 64
- 3M™ Bumpon™ Protective Product SJ5508 die cut and perforated on pads of 64
- 3M™ Bumpon™ Protective Product SJ5523 4×1 matrix separated by perforations
- 3M™ Bumpon™ Protective Product SJ5514 4×1 matrix separated by perforations

Note: Custom Bumpon products may require a qualifying minimum quantity and/or a one time set-up charge. Call your local 3M sales representative for more information.

^{*}Bumpon SJ5300 series identifies transparent products.

Typical Physical Properties and Performance Characteristics

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

| | | 3M™ Bumpon™ Protective Products SJ5000 | | |
|--|---|--|--------------------------------|--------------------------------|
| | 3M Test Method⁴ | SJ5500 SJ5700 | SJ5300 SJ5400 | SJ6100 |
| Hardness, Shore M | ASTM-D2240 | 72 | 75 | 72 |
| Resilience, % | ASTM-D2632, 0.125" sample | 30 | 5 | 30 |
| Kinetic Coefficient of Friction (Mk) (Dependent on Test Surface) ¹ | ASTM-D1894 Stainless Steel Glass Formica® laminate Wood | >1 >1 0.9-1.4 0.9-1.4 | >1 >1 0.9-1.4 0.9-1.4 | >1 >1 0.9-1.4 0.9-1.4 |
| Abrasion Resistance (Taber H18, 1kg) g/1000 cycles ² | ASTM-C501 | 1.7-1.9 | 0.13 | 1.7-1.9 |
| Tensile, lbs/in² (MPa)² | ASTM-D412, Die A | 600 (4.1) | 740 (5.1) | 600 (4.1) |
| Elongation,% ² | ASTM-D412, Die A | 100 | 65 | 100 |
| Dielectric Strength, volts/mil ² | ASTM-D1000 | 200 | 370 | 200 |
| Stain Resistance ³ | 3M-24 hours @ 158°F against white paint 7 days exposed to UV. | No Staining | No Staining | No Staining |
| Flammability Listing | UL-94HB | Pass; UL Recognized | Not UL Recognized | Pass; UL Recognized |
| Application Temperature | | 5°C (40°F) to 52°C (125°F) | | |
| Service Temperature | Constant: Intermittent: | -34°C (-30°F) to 66°C (150°F) Up to 107°C (225°F) | | |
| Solvent and Fuel Resistance ³ | 24 hour immersion 5% Detergent in water 25% Ammonia in water Bleach Hydrochloric Acid (1 Normal Solution) Diesel Fuel Auto Oil Isopropyl Alcohol Heptane Toluene (Toluol) Lacquer Thinner | | | |

Notes:

¹Two important laws of friction applicable to Bumpon products are: (1) Friction is independent of the area of contact between solids and (2) friction is proportional to the load between solid surfaces. Thus, if the load (weight) is doubled the force required to cause sliding is also double. This is expressed mathematically as follows: Sliding Force = Mk x weight.

²These properties were run on sheet material from the same materials as the individual Bumpon products

³ Reference test for 24 hours. Results may vary for different product application conditions.

⁴When ASTM method is listed, data was collected in accordance with ASTM test method.

Relative Adhesive Performance Characteristics

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

| | 3M™ Bumpon™ Protective Products | | | |
|---|---------------------------------|-------------------------------------|---------------------------|--|
| | SJ5000 SJ5500 SJ5700 | SJ5300 SJ5400 | SJ6100 | |
| Adhesive: | Natural Rubber R-30 | Acrylic A-20 | Synthetic Rubber R-25 | |
| Initial Adhesion Low Surface Energy: High Surface Energy: | Good Good | Poor Fair | Excellent Excellent | |
| Adhesion (Peel) Low Surface Energy: High Surface Energy: | Good Good | Poor Good | Excellent Excellent | |
| Static Shear 25°C (75°F): 49°C (120°F): 70°C (158°F): | Excellent Good Poor | Excellent Excellent Excellent | Excellent Good Fair | |
| Dynamic Shear: | Good | Excellent | Good | |
| Solvent Resistance: | Good | Excellent | Good | |

Adhesive Performance

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

The following table on peel adhesion provide representative performance characteristics of the adhesive systems used in the construction of 3M[™] Bumpon[™] Protective Products molded series products.

90° Peel Adhesion

*Peel Force, oz. Per 1/2 inch

| | 3M ¹ | ots | |
|-----------------|----------------------------|------------------|--------------------------|
| | SJ5000 SJ5500 SJ5700 | SJ5300 SJ5400 | SJ6100 |
| Substrate: | Natural Rubber R-30 | Acrylic A-20 | Synthetic Rubber R-25 |
| Polypropylene | 25 | 3 | 52 |
| Polystyrene | 25 | 11 | 55 |
| ABS | 25 | 25 | 55 |
| Stainless Steel | 22 | 25 | 55 |
| Aluminum | 22 | 25 | 55 |

^{*3}M Test Method TM-2011; 72 hour dwell, 1/2 inch wide samples pulled at 12 inches per minute. Testing completed using Bumpon Resilient Rollstock products SJ5816, SJ6016, and SJ6216, which use the same adhesive system as the molded series products.

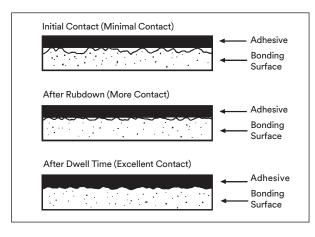
Application Techniques

To obtain maximum adhesion, surfaces must be unified, dry, and free of contaminants. Surface contact is essential to adhesive performance. To maximize contact on a substrate:

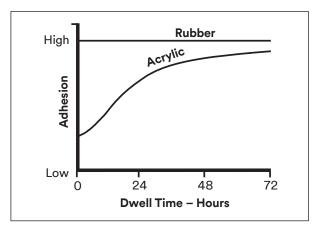
- Clean surfaces with low strength solvent such as isopropyl alcohol (rubbing alcohol) or heptane.*
- Apply firm pressure to help increase the cold flow and contact of the adhesive with the substrate.
- Allow time (dwell) to increase the surface contact and adhesion (see illustrations below).

*Note: Be sure to follow the manufacturer's precautions and directions for use when using solvents.

Adhesive Surface Contact



Rubber Adhesive vs. Acrylic Adhesive Bond Build-up



Environmental Exposure

Colored and transparent 3M[™] Bumpon[™] Protective Products are intended for interior applications where resilience and other physical properties will remain unchanged. When exposed to UV light for extended periods some slight discoloration or yellowing may occur.

Bumpon products may be used outdoors in a protected area with some discoloration possible; colored Bumpon products may chalk.

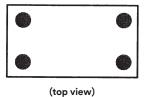
Simultaneous exposure to high humidity and temperature may degrade (soften) the Bumpon product urethane.

Product Selections Considerations

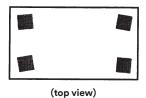
Alignment

Alignment is more difficult with a rectangular shaped 3M™ Bumpon™ Protective Product when no recess is provided.

Circular shaped product



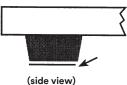
Rectangular shaped product



Point of Contact

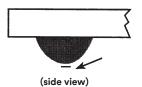
The point of contact provides either a large contact area or a very small (point) contact area depending on the shape of the Bumpon product.

Flat



- Increased load capacity
- Better wear resistance

Hemisphere



- Increased sound dampening
- Increased energy absorption

Profile

The profile is defined by the height and the diameter (or width) of the Bumpon product.

Low Profile



- Increased load capacity
- Less susceptible to being sheared off substrate

High Profile



- Better hear dissipation
- Not recommended if sideways shearing is possible

Recess

A recess is not necessary; however, there are several benefits to providing a recess.



Storage and Shelf Life

The shelf life of 3M[™] Bumpon[™] Protective Products is 18 months from the date of manufacture when stored in the original packaging materials and stored at 16-27°C (60-80°F) and 50% relative humidity.

Regulatory: For regulatory information about this product, contact your 3M representative.

Technical Information: The technical information, recommendations and other statements contained in this document are based upon tests or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed.

Product 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. Given the variety of factors that can affect the use and performance of a 3M product, user is solely responsible for evaluating the 3M product and determining whether it is fit for a particular purpose and suitable for user's method of application.

Warranty, Limited Remedy, and Disclaimer: Unless an additional warranty is specifically stated on the applicable 3M product packaging or product literature, 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 OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY OR CONDITION ARISING OUT OF A COURSE OF DEALING, CUSTOM OR USAGE OF TRADE. If the 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 where prohibited by law, 3M will not be liable for any loss or damage arising from the 3M product, whether direct, indirect, special, incidental or consequential, regardless of the legal theory asserted, including warranty, contract, negligence or strict liability.



Electronics Materials Solutions Division

3M Center, Building 224-3N-11 St. Paul, MN 55144-1000 1-800-251-8634 phone 651-778-4244 fax www.3M.com/electronics 3M and Bumpon are trademarks of 3M Company. Formica is a registered trademark of the Formica Corporation. Please recycle.

©3M 2015. All rights reserved.

60-5002-0526-9



X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Mounting Fixings category:

Click to view products by 3M manufacturer:

Other Similar products are found below:

5912235-2 007310 007541 6-141-P 620HA038NF09 620HA038NF11 CTJ420E028-513 M81714/60-12-01 M81714/60-22-01 L/C
MA1EAF1200 70-584649-01P 71-074914-006 71-215091-8S 712HA170B23128-N 71-344699-4S 71-441549-19S 71-441864-5S 71490451-4H EX-13-3-B-16-325PN 75-69116-8S 75-69211-3P 75-69220-27S 75-69224-5S 75-69614-2S 770-006A109 770-006A109R 770006A207 770-006A208W1 770-006A209 770-006A306 770-006A703W1 770-006A704 770-006A704W1 770-006A705 770-006A706
770-006A706W1 770-006A707 770-006A709 770-007A203 770-007A203W1 770-007A204W1 770-007A207W1 770-007A703 770007A704W1 770-007A706 770-007A707W1 770-010Y208 770-010Y308 770-010Y705 770-010Y706