

Technical Data Sheet

April 2025

BumperFlex™ Tapes are Self-Adhesive Protective Tape which when die-cut are used in a variety of different applications as feet, stops & spacers due to the materials resilience and its protective qualities.

The material is shock & vibration resistant, sound dampening, non-slip, non-marking and protects against scratches. Made using a plasticiser free, polyurethane composition with a long aging high-tack pressure sensitive adhesive. BumperFlex™ Tapes can be specially die-cut into customised shapes and applied to a huge range of items. Also very useful as spacers to prevent squeaks and rattles.

Often used as low profile feet and spacers for the protection of small appliances, desktop or handheld electronic devices, telephones, keyboards, foot pedals, scales, clocks, speakers, dispensers, and computers, audio, video, medical equipment and domestic appliances.

Tape Details

	4105	4108	4110	4112	4116
Carrier	Polyurethane	Polyurethane	Polyurethane	Polyurethane	Polyurethane
Thickness	0.5mm	0.8mm	1.0mm	1.2mm	1.6mm
Adhesive	Solvent Acrylic	Solvent Acrylic	Solvent Acrylic	Solvent Acrylic	Solvent Acrylic
Backing Liner	Paper/Film	Paper/Film	Paper/Film	Paper/Film	Paper/Film
Standard Roll Dimensions	115mm x 66m	115mm x 66m	115mm x 66m	115mm x 33m	115mm x 33m
Slitting Tolerance	± 0.5mm	± 0.5mm	± 0.5mm	± 0.5mm	± 0.5mm
Thickness Tolerance	± 8%	± 8%	± 6%	± 6%	± 6%

Polyurethane Physical Properties

Property	Method	Average Result Carried out on 4112
Shore Hardness A	ASTN D2240	68-76
Tensile Strength	ASTM D412 Die C 500mm/min @23±2°C and 50±10%RH	5.59 MPa / 811psi
Elongation at Break	ASTM D412 Die C 500mm/min @23±2°C and 50±10%RH	68%
Tear Strength (Angle Tear)	ASTM D412 Die C 500mm/min @23±2°C and 50±10%RH	13.8 N/mm
Taber Abrasion	ISO 5470-1—CS17 Wheel 1000g	0.005 mg/1000cycles
Load Tolerance	Min 3 Mpa	Min 3 Mpa
Flame Retardancy	UL94HB (in house test)	Pass (Clear & Coloured)

Kinetic Coefficient of friction	ASTM D-1894-78	Clear 4000 series	Coloured 4000 series
	A Stainless Steel	5.69	4.9
	B Glass	2.9	2.24
	D High Impact Polystyrene	2.53	2.19
Density		1080-1120 kg/m3	
Compression Set 40°C (%)	BS903	Max 5	Max 5

Solvent & Fuel Resistance

Tests carried out at 23°C for 24 hours

5% detergent in water
25% detergent in water
5% bleach in water
Motor oil
Isopropyl Alcohol
Hydrochloric acid (one normal solution)
Diesel Fuel
Heptane
Toluene

No noticeable effect
No noticeable effect
No noticeable effect
No noticeable effect
Some swelling. More evident in clear series
No noticeable effect
No noticeable effect
Slight swelling
Substantial swelling

DISCLAIMER: To the best of our knowledge the information in this data sheet is believed to be correct as of the date issued. However, neither BumperStops Ltd nor any of its subsidiaries and/or distributors assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Because of changing EU regulations this information could be subject to change without prior notice to customers. In all cases the customer must determine the suitability of any of our materials for their specific application.

BumperFlex™ Tapes are RoHS, REACH and Wee compliant.

Technical Data Sheet

April 2025

Pressure Sensitive adhesive data

4001 - Standard on all BumperStop® Protectors

A solvent based acrylic adhesive with high instant tack. Strong stable pressure sensitive adhesive system which displays good adhesion to more demanding surfaces that would need higher levels of tack as well as good peel and shear properties. This adhesive system also displays good ageing properties when used for long term applications

Peel & Shear Data

Surface Material	Test Method	4001 Pressure Sensitive Adhesive	
		20min - 23°C 50% RH	24h - 23°C 50% RH
Stainless Steel	Peel FINAT 1 Unit N/25mm	16.0	15.7
Aluminium		12.1	14.8
Glass		12.5	17.7
HDPE		4.1	4.4
Polystyrene		9.9	13.1
ABS		14.4	15.1
Stainless Steel	Shear FINAT 8		>300h
Stainless Steel	Loop Tack N/25mm	22.0	

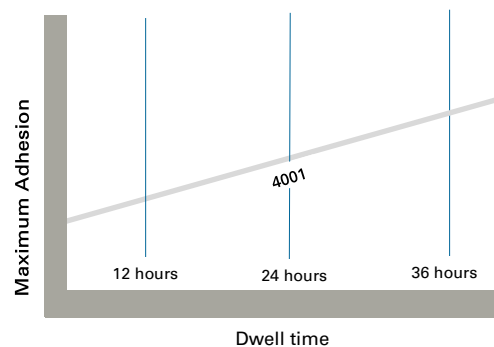
Temperature Range

Adhesive No	Adhesive Type	Application Temperature	Service Temperature
4001	Solvent Acrylic	20°C to 40°C	- 40°C to + 120°C

Adhesive Considerations

Please refer to the chart which illustrates the relative adhesion properties of the adhesive system used in the production of BumperStop® Protectors. In general terms it is helpful to allow time (dwell) to increase the surface contact and therefore the overall adhesion.

We always recommend customers carry out their own tests to ensure suitability because application conditions will vary.



APPLYING BumperFlex™ Tapes

It is important to remember, that as with any self adhesive product, the surface to which the tape is being applied must be clean, dry and free from dust and dirt. Therefore, to gain maximum adhesion it might be necessary to clean the surface with low strength solvent and allow to dry thoroughly before use. Please follow solvent manufacturers' instructions for safety. In some cases we also recommend the use of an application roller to ensure maximum adhesion force is applied to the tape or die-cut once in its final position.