



Acrylic Foam Tapes

High Performance Double Sided Tapes

For Automotive, Shipbuilding, Electrical, Glass, Solar, Aerospace, Display, Furniture, and White Goods Industries, as well as for Machine Construction, Structural-Facings Sector and much more.



Product	Sample	Colour	Thickness (mm)	Foam Density (kg/m ³)	Liner Type	Dynamic Shear (N/25mm)	180° Peel Adhesion (N/25mm)	Tensile (N/25mm)	Temperature Resistance	Perm. Temperature	Description
74040-08		White (08)	0,4	850	Film	196,00	34,30	269,50	- 40°C up to +160°C	+100 °C	High adhesive strength for a wide range of applications. High flexibility due to different strip thicknesses. Adheres to numerous metals, plastics, ceramic and composite materials.
74064-08		White (08)	0,64	850	Film	176,40	40,18	257,25	- 40°C up to +160°C	+100 °C	
74110-08		White (08)	1,1	850	Film / Paper	139,65	44,10	242,55	- 40°C up to +160°C	+100 °C	
74200-08		White (08)	2,0	850	Film	117,60	34,30	160,48	- 40°C up to +160°C	+100 °C	
74025-00		Clear (00)	0,25	1000	Film	355,25	15,68	247,45	- 40°C up to +250°C	+150 °C	High shear and peel performance and very high temperature resistance.
74050-00		Clear (00)	0,5	1000	Film / Paper	120,05	20,58	172,24	- 40°C up to +150°C	+90 °C	For bonding glass, clear plastics and applications requiring an invisible bond line. These foams are soft, tacky and conformable. Acts as a very good seal and bonding tape. Applications in solar technology, construction of glass partitions, windows, doors and safety glass manufacturing.
74100-00		Clear (00)	1,0	1000	Film / Paper	120,05	26,46	172,24	- 40°C up to +150°C	+90 °C	
74150-00		Clear (00)	1,5	1000	Film	98,00	32,24	147,00	- 40°C up to +150°C	+90 °C	
74200-00		Clear (00)	2,0	1000	Film	98,00	32,34	171,50	- 40°C up to +150°C	+90 °C	
74040-55		Grey (55)	0,4	850	Film	196,00	34,30	269,50	- 40°C up to +160°C	+100 °C	This range is ideal for bonding engineering plastics, sheet plastics and a wide range of metals, especially stainless steel and aluminium. Very good for powder coated painted surfaces and automotive paints.
74064-55		Grey (55)	0,64	850	Film	176,40	32,83	186,20	- 40°C up to +160°C	+100 °C	
74080-55		Grey (55)	0,8	850	Film	159,25	36,26	171,50	- 40°C up to +160°C	+100 °C	
74110-55		Grey (55)	1,1	850	Film	154,35	38,22	147,00	- 40°C up to +160°C	+100 °C	
74150-55		Grey (55)	1,5	850	Film	151,90	38,22	122,50	- 40°C up to +150°C	+100 °C	
75064-08		White (08)	0,64	850	Film	173,95	35,28	276,85	- 40°C up to +150°C	+90 °C	This range is formulated for bonding low surface energy plastics, providing excellent bond strength on Polypropylene and Polystyrene. Also suitable for many other substrates.
75110-08		White (08)	1,1	850	Film / Paper	164,15	36,26	176,40	- 40°C up to +150°C	+90 °C	

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76040-55		Grey (55)	0,40	780	Film / Paper	171,50	32,34	183,75	- 40°C up to +160°C	+100 °C	This series has been developed for the automotive industry and has excellent adhesion to automotive plastics and painted steel. Other applications in the sign industry, construction industry and automotive aftercare market.
76064-55		Grey (55)	0,64	780	Film	166,60	34,30	171,50	- 40°C up to +160°C	+100 °C	
76080-55		Grey (55)	0,8	780	Film / Paper	159,25	36,26	159,25	- 40°C up to +160°C	+100 °C	
76110-55		Grey (55)	1,1	780	Film / Paper	147,00	38,22	147,00	- 40°C up to +160°C	+100 °C	
76150-55		Grey (55)	1,5	780	Film	134,75	38,22	134,75	- 40°C up to +160°C	+100 °C	
76200-55		Grey (55)	2,0	780	Film	129,85	38,22	122,50	- 40°C up to +160°C	+100 °C	
76025-04		Black (04)	0,25	780	Film	183,75	30,38	191,10	- 40°C up to +160°C	+100 °C	
73040-55		Grey (55)	0,4	780	Film	200,90	61,74	249,90	- 40°C up to +160°C	+100 °C	Low application temperature and LSE. This tape provides a good combination of adhesion to low surface energy surfaces, conformability and initial tack. Specifically formulated for application in low temperatures approaching freezing.
73120-55		Grey (55)	1,2	780	Film	176,40	64,68	208,25	- 40°C up to +160°C	+100 °C	
73200-55		Grey (55)	2,0	780	Film	110,25	38,22	122,50	- 40°C up to +160°C	+80 °C	
77025-08		White (08)	0,25	1500	Film / Paper	196,00	11,76	220,50	- 40°C up to +160°C	+100 °C	Thermally conductive. Combines the excellent bonding properties of acrylic foam tape with the ability to conduct heat away from heat sources. Contains ceramic particles which act as the conduction medium. A typical use includes bonding heat sinks in many electronics applications.
77064-08		White (08)	0,64	1500	Film	193,55	20,58	205,80	- 40°C up to +160°C	+100 °C	
77120-08		White (08)	1,2	1500	Film	147,00	15,68	205,80	- 40°C up to +160°C	+100 °C	
76064 FR-08		White (08)	0,64	1500	Film	193,55	20,58	205,80	- 40°C up to +160°C	+100 °C	Flame retardant. Tested and approved for aerospace (FAR/JAR) flammability, smoke emission and toxic gas emission requirements. Typical applications include bonding parts in aircraft, ships and trains. Also approved to UL97 VLO.
76110 FR-08		White (08)	1,1	1500	Film	181,30	18,62	205,80	- 40°C up to +160°C	+100 °C	

Test Methods

Dynamic Shear = ASTM D 1002

Temperature Resistance = days / weeks

180° Peel Adhesion = ASTM D 3300

Temperature Resistance short term = minutes / hours

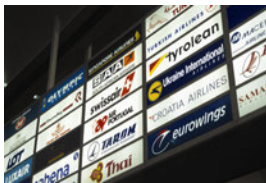
Tensile Adhesion = ASTM D 897

Transportation: Automotive, Bus & Truck Manufacturing



- ① Bonding of the roof construction in bus production, roof windows, running boards, air grids
- ① Bonding of profiles in manufacturing of truck trailers
- ① Fastening of external decorative strips, plaques, emblems, and spoilers
- ① Roof coverings and frame construction in trucks and buses
- ① Interior trims, mirrors, skylights, lighting elements
- ① Floor protection strips made of plastic, rear-view mirrors, etc.
- ① Fastening of various decorative elements, such as wheel arch trims
- ① Bonding of rain sensors, GPS antennas, etc.

Sign Industry



- ① Used in traffic signs - fixing sign boards on stiffening elements
- ① Bonding large panel signs on stiffening elements
- ① Attaching translucent polycarbonate for illuminated signs
- ① Fixing of single letters
- ① Mounting lighting elements on illuminated emergency signs

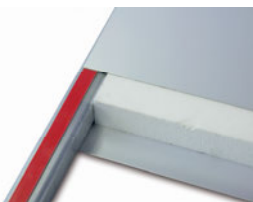
Solar Industry



- ① Bonding of the Junction Box (vapour diffusion)
- ① Adhesion of the solar panels during installation
- ① Mainly die-cut parts are used, which can be fully integrated into the production process



Glass & Windows



- ① Combination of several glass layers to produce safety glass
- ① Mounting of mirrors, external glazing bars
- ① Attaching sealing strips to windows
- ① Fastening extruded profiles to window frames
- ① Securing double glazing in door panels
- ① Joining polycarbonate and glass
- ① Assembly of shower cabins

Electronics Industry



- ① Bonding electronic components, e.g. battery packs
- ① Mounting of integrated circuit boards
- ① Secure fastening of ribbon cables
- ① Fastening of components in mobile phones and telecommunication systems
- ① Bonding LCD displays, gluing of LCD-PDP screens in frames
- ① Fastening of components in electrical household appliances such as freezers, refrigerators, stereo systems, televisions, microwave ovens, washing machines, etc.
- ① Attaching distribution boxes

Construction, Metal & Plastics Fabrication



- ① Fastening multi-chamber plastic sheeting for roofs of conservatories and winter gardens
- ① Bonding building siding and cladding
- ① Mounting and sealing skylight domes, etc.
- ① Attaching building materials, door fittings, door protection plates (push, pull, and kick plates) and wall protection profiles
- ① Securing panels in interior partition wall systems
- ① Fastening of various plastic films on metal, wood or other plastics
- ① Used in air conditioning, heating and ventilation systems to bond duct sheeting
- ① Used widely with automotive plastics for interior trim strips on dashboards
- ① Sealing and fastening of industrial machinery casing and cabinets
- ① Die-cut parts are used for all types of moulded plastic components used in a wide range of applications for machine parts, electronic goods, computers etc.

How much pressure should be applied when applying acrylic foam tape?

The aim when applying pressure is to achieve 100% wet-out on the surface to be bonded. To achieve good wet-out and ultimately a good bond, it is essential to ensure that this is done firmly and evenly. In general a minimum of 15 PSI (100 kpa) should be used for rigid materials. More flexible components may require less pressure to bond. Size, shape and tape placement must also be considered when applying pressure.

Why does acrylic foam tape not feel very sticky to the touch?

While acrylic foam tapes tend to be firm and dry to the touch, this is not an absolute indication of their final bonding properties to the substrate. An acrylic foam tape's bond builds over a 72-hour period to form an unsurpassable bond. Adhesives such as rubbers and hot melts, which have high tack, do not have the same physical properties compared to temperature, plasticizers or solvents and cannot produce such a strong bond. Certain acrylic adhesives are modified by adding tackifiers to increase adhesive strength, but this is generally at the expense of the intended performance factors mentioned above.

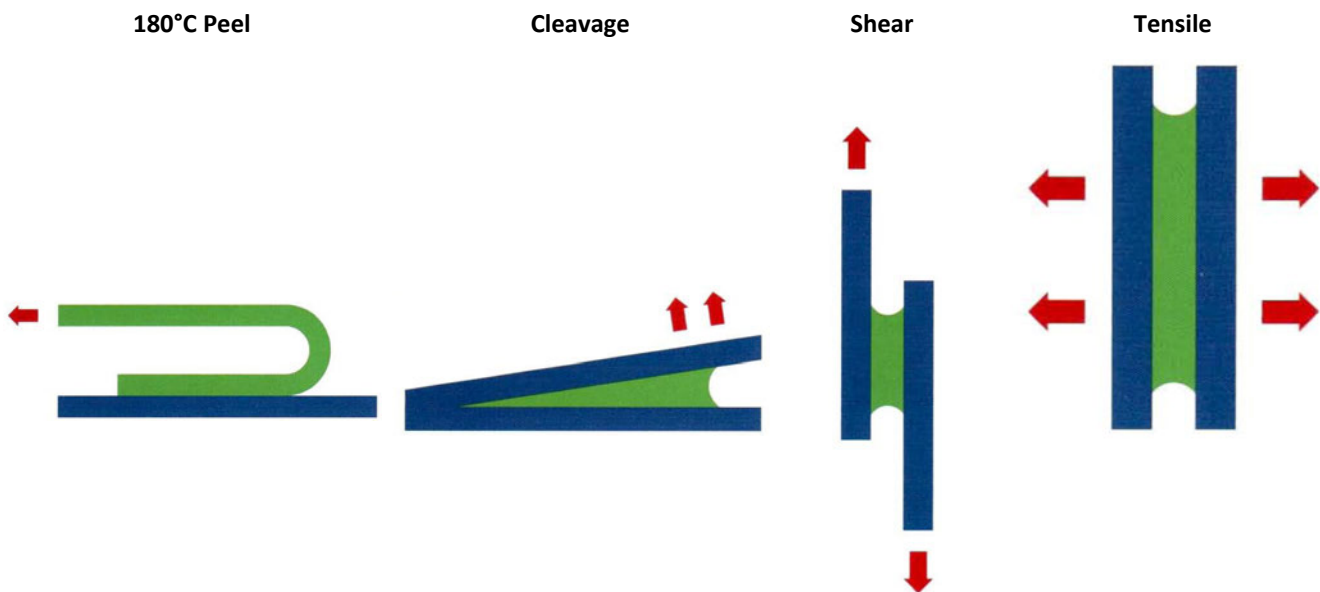
What is the purpose of having varying thicknesses of tape?

The thickness of an acrylic foam tape allows it to compensate for unevenness when bonding two different surfaces. When choosing a tape to provide a good bond, the two surfaces to be bonded must be optimally covered. The greater the bonding surface, the more effective the bond will be. If, for example, the difference between rigid, non-flexible materials is 1 mm, it is recommended that one always uses an adhesive tape that is twice as thick. So in this case one would use a 2mm tape.

Acrylic foam tapes are designed to allow materials to be joined together without tension. The acrylic foam core allows both stretching and relaxation of the tape. This means that the tension is distributed throughout the foam core and is not concentrated on the tape line, which is often the reason for bonding failure. Acrylic foam tape can stretch up to three times its thickness to accommodate thermal expansion.

What are the different types of forces that the tape can be subject to?

The following are schematic diagrams of forces that bonds can be subjected to. Designs should maximise shear and tensile strength and minimise cleavage and peeling.



Bonding to Difficult Substrates

The surface energy of any substrate that requires bonding will determine how easy or difficult it will be to bond to that surface. Surfaces with a high surface energy are easier to bond to and surfaces with low surface energy more difficult.

The surface energy of a substrate will ultimately determine the ability of acrylic foam tapes to “wet-out” surfaces to allow for adhesion. Wet-out refers to how well the acrylic foam tape flows and ultimately covers the surfaces that it is bonding with. Maximum adhesion occurs when the acrylic foam tape thoroughly wets-out the surfaces being bonded. The better the wet-out, the greater the surface coverage, which in turn will allow the attractive forces between the adhesive and substrate to develop to its fullest potential.

Low surface energy substrates often require special surface preparation to raise surface energy and make them easier to bond to. Surface preparation usually takes the form of cleaning with solvents, abrasion, priming, flame treatment, plasma, and acid or corona treatment. The effect of these treatments is that the surface of the substrate will be improved to allow adhesives to bond to it.

Relative Surface Energy Table

High Surface Energy		Medium Surface Energy		Low Surface Energy	
Aluminium	Stainless Steel	Kapton®	ABS	EVA	Polyethylene
Lead	Glass	Epoxy Paint	Acrylic	Polypropylene	Tedlar®
Zinc	Copper	Polyester	PVC	Silicone	Teflon®
Anodized Aluminium		Nylon	Polycarbonate		

Kapton®, Tedlar® and Teflon® are registered trademarks of DuPont.

What is the advantage die-cuts made from Acrylic Foam Tapes?

Die-Cuts made of Acrylic Foam Tapes are reliable and can be processed both by machine and by hand. They may be delivered on rolls or as a single die-cut. Die-cut parts are indispensable, especially in production processes which are partly or completely automated such as: bonding of junction boxes in the solar industries, bonding of GPS antennas or modules in the automotive industry, or bonding of displays in the production of mobile phones. The excellent application and fast processing make die-cuts indispensable in many applications. We are happy to advise you further on how Acrylic Foam Tapes can benefit your specific processes.



Application Instructions

- Ensure that the surfaces to be bonded are completely clean and free from dust and grease.
- The surfaces to be bonded should be dry and free from any loose particles.
- The best cleaning medium is a solvent such as Isopropyl alcohol applied with a clean cloth or tissue.
- To attain the optimum bond sufficient pressure should be applied to the surface area to be bonded. To ensure good adhesive "wet-out" typical pressure should be 15PSI+100KPA.
- The adhesive is pressure sensitive and best results are achieved with maximum surface contact under pressure.
- 50 % of bond strength is attained after 20 minutes. 90 % of the optimum bond strength will be achieved after 24 hours. 100 % is achieved after 72 hours.
- Avoid significant load bearing to the bond directly after application.
- Recommended application temperature +20°C to +36°C.
- Minimum application temperature should not be below +10°C.
- Certain Surfaces will require priming or sealing such as porous surfaces like plaster and concrete, also absorbent surfaces such as untreated wood and fabrics.
- Metals with Oxidised surfaces such as aluminium, copper and brass may need priming or abrading. Low energy surfaces such as Polypropylene plastics containing aggressive plasticisers may also need treatment.

Storage Conditions

The adhesive tape rolls should always be stored in their original cartons, upright and not in a horizontal position. Always protect the tape of incident solar radiation. For the best shelf life, storage temperature should be between 15°C and 25°C with a relative humidity of 50% (± 30%). Tapes stored below 15°C, should be kept at room temperature for at least 24 hours before use to ensure that the tape regains its distinctive properties.

Quality Management System



Characteristics, Features and Benefits

- Excellent load bearing capacity.
- Excellent high performance characteristics.
- Unlike screws, nuts and bolts, no metal fatigue and no mechanical quality loss.
- Has vibration dampening and shock absorption properties. Acts as a complete water, dust and air seal. Thermal expansion and cold contraction is absorbed by the highly conformable, viscoelastic nature of the tape.
- Labour saving, reduces re-finishing work, touch up and clean-up time required with other forms of bonding/fixing.
- When replacing spot welding, there is no distortion of the sheet metal or grinding of welding beads.
- Mechanical joining methods, such as screwing, riveting, spot welding or soldering, can be reliably replaced in many cases by using Acrylic Foam Tapes.

Slitting Tolerances

Length < 33m	± 0,4mm	(± 1/64")
Length > 33m	± 0,8mm	(± 1/32")

Other Tolerances Available Upon Request

Dimensions

Material Thickness	Length / Roll
0,25 mm	66 m
up to 1,5 mm	33 m
of 1,5 mm up to 2,0 mm	25 m
of 2,0 mm up to 3,0 mm	16,5 m
of 3,0 mm	12 m

Widths

Slitted Rolls	4mm up to Logwidth
Logrolls	400mm Standard
Spools and Other Widths Available Upon Request	

Environmental Management System



