

Tape Selection Guide

Adhesive family selection based on surface energy

Adhesives attach to the surfaces of two substrates, unlike a process that fuses substrates into a unified whole such as welding metal or solvent activation of plastics. In selecting a 3M adhesive or tape, surface condition must be considered: roughness, smoothness, porosity, coated, uncoated, cleanliness, flexibility, size of the part and surface energy of the part.

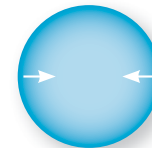
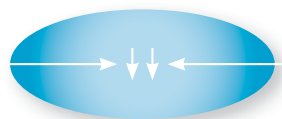
Adhesive paste, for example, flows readily into a rough surface for improved effective adhesion. Flexible materials such as paper or thin gauge metal can be bonded with a thin adhesive transfer tape. Large rigid parts with smooth clean surfaces can be bonded with a variety of 3M products ranging from double coated foam tapes to two-part structural adhesives. Some plastics have plasticisers which migrate to the surface and degrade the bond over time, so a plasticiser-resistant adhesive or tape is essential. If the substrate has been powder coat painted, the coating is the bonded surface rather than the substrate and you would want to consider a 3M tape or adhesive developed specifically for that surface.

Surface energy ranges from high to low. To illustrate the concept of surface energy, think of water on the unwaxed bonnet of a car. The unwaxed bonnet has high surface energy and water on the hood flows into puddles. In comparison, a waxed hood has low surface energy and water beads up rather than flows out. Similar to water, adhesive on a high surface energy surface flows and “wets out” the surface. “Wetting out” is required to form a strong bond.

As a rule of thumb, the higher the surface energy, the greater the strength of adhesion.

Specially formulated adhesives are available for low surface energy surfaces. The following illustrations and surface rankings give you an idea of relative surface energy.

Regardless of surface energy, the substrate must be unified, dry, and clean to maximise adhesive contact.



METAL SURFACES

Metals	Surface Energy Dynes/cm
Copper	1103
Aluminium	840
Zinc	753
Tin	526
Lead	543
Glass Porcelain	250-500
Stainless Steel	700-1100

HSE PLASTICS

HSE Plastics	Surface Energy Dynes/cm
Kapton®	50
Phenolic	47
Nylon	46
Alkyd Enamel	45
Polyester	43
Epoxy Paint	43
Polyurethane	43
ABS	42
Polycarbonate	42
PVC Rigid	39
Noryl	38
Acrylic	38
Polane Paint	38

LSE PLASTICS

LSE Plastics	Surface Energy Dynes/cm
PVA	37
Polystyrene	36
Acetal	36
EVA	33
Polyethylene	31
Polypropylene	29
Polyvinyl Fluoride Film	28
PTFE Fluoropolymer	18
Powder Coatings	**

** Broad range of surface energy

Adhesive	1	2	3	4	5	6	7	8	9	10
100	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange
100MP	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
200MP	Purple	Purple	Purple	Purple	Purple	Purple	Purple	Purple	Purple	Purple
300	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue
300LSE	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
300MP	Purple	Purple	Purple	Purple	Purple	Purple	Purple	Purple	Purple	Purple
350	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
400	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange
420	Pink	Pink	Pink	Pink	Pink	Pink	Pink	Pink	Pink	Pink
800 Series	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue
1000 Series	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown

Adhesive	1	2	3	4	5	6	7	8	9	10
100	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange
100MP	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
200MP	Purple	Purple	Purple	Purple	Purple	Purple	Purple	Purple	Purple	Purple
300	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue
300LSE	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
300MP	Purple	Purple	Purple	Purple	Purple	Purple	Purple	Purple	Purple	Purple
350	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
400	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange
420	Pink	Pink	Pink	Pink	Pink	Pink	Pink	Pink	Pink	Pink
800 Series	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue
1000 Series	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown

Adhesive	1	2	3	4	5	6	7	8	9	10
100	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange
100MP	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
200MP	Purple	Purple	Purple	Purple	Purple	Purple	Purple	Purple	Purple	Purple
300	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue
300LSE	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
300MP	Purple	Purple	Purple	Purple	Purple	Purple	Purple	Purple	Purple	Purple
350	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
400	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange
420	Pink	Pink	Pink	Pink	Pink	Pink	Pink	Pink	Pink	Pink
800 Series	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue
1000 Series	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown

1 = Lowest Performance 10 = Highest Performance

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

3M™ Scotch-Weld™ Epoxy and Acrylic Adhesives

● Best Choice ● Good ○ Special surface preparation required – Not recommended

		DP100	DP110	DP190	DP270	DP420	DP460	DP460NS	DP810	DP810NS	DP8005	DP8010	1838	2216	3501	2214 HD
Glass & Metal	Glass & Ceramics, Polished Stone	○	●	●	●	●	●	●	●	●	○	○	○	○	○	–
	Bare Aluminium	●	●	●	●	●	●	●	●	●	○	○	●	●	●	●
	Brass/Copper	○	●	●	●	●	●	●	●	●	○	○	●	●	●	●
	Bare Steel	●	●	●	●	●	●	●	●	●	○	○	●	●	●	●
Plastic	Low Surface Energy (PP - PS)	–	–	–	–	–	–	–	–	–	●	●	–	–	–	–
	Medium Surface Energy (Acrylic - ABS)	○	○	●	○	○	○	○	●	●	●	●	●	●	●	–
	High Surface Energy (PC - PU)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	FRP	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Nylon	●	●	●	○	●	●	●	●	●	–	–	●	●	●	●
	Flexible Vinyl	●	○	●	○	●	●	●	●	●	●	●	●	●	●	–
	Polyurethane Foam	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	Painted Surface (PU, Acrylic)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	Painted Surface (Powdercoat)	○	○	○	○	○	○	○	●	●	●	●	○	○	○	–
	Expanded Polystyrene Foam (EPS)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Rubber	EPDM	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	Neoprene , Natural Rubber	○	○	●	○	○	●	●	○	○	●	●	○	●	○	–
	Santoprene	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	Silicone Rubber	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Other	Wood	●	●	●	●	●	●	●	●	●	●	●	●	●	●	–
	Leather	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	Fabric	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	Paper / Cardboard	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	Glass wool Insulation	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

3M™ Scotch-Weld™ Instant Adhesives

● Best Choice ● Good ○ Special surface preparation required – Not recommended

		CA4	CA5	CA7	CA8	CA9	CA40	CA40H	CA50 Gel	CA100
Glass & Metal	Glass & Ceramics, Polished Stone	–	–	–	–	–	–	–	–	–
	Bare Aluminium	●	●	●	●	●	●	●	●	●
	Brass/Copper	●	●	●	●	●	●	●	●	●
	Bare Steel	●	●	●	●	●	●	●	●	●
Plastic	Low Surface Energy (PP - PS)	–	–	–	–	–	–	–	–	–
	Medium Surface Energy (Acrylic - ABS)	●	●	●	●	●	●	●	●	●
	High Surface Energy (PC - PU)	●	●	●	●	●	●	●	●	●
	FRP	●	●	●	●	●	●	●	●	●
	Nylon	●	●	●	●	●	●	●	●	●
	Flexible Vinyl	–	–	–	–	–	●	●	–	–
	Polyurethane Foam	–	–	–	–	–	–	–	–	–
	Painted Surface (PU, Acrylic)	–	–	–	–	–	–	–	–	–
	Painted Surface (Powdercoat)	○	○	○	○	○	○	○	○	○
	Expanded Polystyrene Foam (EPS)	–	–	–	–	–	–	–	–	–
Rubber	EPDM	●	●	●	●	●	●	●	●	●
	Neoprene , Natural Rubber	●	●	●	●	●	●	●	●	●
	Santoprene	–	–	–	–	–	●	●	–	–
	Silicone Rubber	–	–	–	–	–	–	–	–	–
Other	Wood	–	–	–	–	–	–	–	–	–
	Leather	–	–	–	–	–	–	–	–	–
	Fabric	–	–	–	–	–	–	–	–	–
	Paper / Cardboard	–	–	–	–	–	–	–	–	–
	Glass wool Insulation	–	–	–	–	–	–	–	–	–

IMPORTANT NOTE: These tables describe the relative adhesion to the listed surface within the product group, you may need to take into consideration factors such as: Gap filling, ultimate joint strength, joint flexibility or joint thickness, environmental resistance, small or large surface area coverage, application methods, positioning time or cure time. Please refer to individual product technical datasheets for more complete details of typical product performance.

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Final product selection should be made only after evaluation of sample bonds.

3M™ Scotch-Weld™ Polyurethane Reactive (PUR) Adhesives

● Best Choice ● Good ○ Special surface preparation required – Not recommended

		TE030	TE040	TE100	TE200
Glass & Metal	Glass & Ceramics, Polished Stone	○	●	○	○
	Bare Aluminium	●	●	●	●
	Brass/Copper	●	●	●	●
	Bare Steel	●	●	●	●
Plastic	Low Surface Energy (PP - PS)	–	–	–	–
	Medium Surface Energy (Acrylic - ABS)	●	●	●	○
	High Surface Energy (PC - PU)	●	●	●	○
	FRP	●	●	●	●
	Nylon	○	○	○	○
	Flexible Vinyl	●	●	●	●
	Polyurethane Foam	–	–	–	–
	Painted Surface (PU, Acrylic)	–	–	–	–
	Painted Surface (Powdercoat)	○	○	○	○
	Expanded Polystyrene Foam (EPS)	●	●	●	●
Rubber	EPDM	–	–	–	–
	Neoprene , Natural Rubber	●	●	●	●
	Santoprene	–	–	–	–
	Silicone Rubber	–	–	–	–
Other	Wood	●	●	●	●
	Leather	●	●	●	●
	Fabric	●	●	●	●
	Paper / Cardboard	–	–	–	–
	Glass wool Insulation	–	–	–	–

At least one surface should be porous or partially porous. Don't bond metal or glass to themselves. Apply adhesive to the non-metal surface first.

3M™ Scotch-Weld™ Hot-Melt Adhesives

● Best Choice ● Good ○ Special surface preparation required – Not recommended

		3762LM	3792LM	Gummy*	1747	1762	1792	3738	3748	3762	3764	3789
Glass & Metal	Glass & Ceramics, Polished Stone	–	●	●	–	–	–	–	–	–	●	–
	Bare Aluminium	–	–	●	–	–	–	–	–	–	–	●
	Brass/Copper	–	–	●	–	–	–	–	●	–	–	●
	Bare Steel	–	–	●	–	–	–	–	–	–	–	●
Plastic	Low Surface Energy (PP - PS)	●	●	●	●	●	●	–	●	●	●	–
	Medium Surface Energy (Acrylic - ABS)	●	●	●	●	●	●	●	●	●	●	–
	High Surface Energy (PC - PU)	●	●	●	●	●	●	●	●	●	●	●
	FRP	–	–	–	–	–	–	●	●	–	●	●
	Nylon	–	–	–	–	–	–	–	–	–	–	–
	Flexible Vinyl	–	–	–	–	–	–	–	–	–	–	●
	Polyurethane Foam	–	–	–	–	–	–	–	–	–	–	–
	Painted Surface (PU, Acrylic)	●	●	●	●	●	●	●	●	●	●	●
	Painted Surface (Powdercoat)	○	○	○	○	○	○	○	○	○	○	○
	Expanded Polystyrene Foam (EPS)	●	●	●	–	–	–	–	–	–	–	–
Rubber	EPDM	–	–	–	–	–	–	–	–	–	–	–
	Neoprene , Natural Rubber	–	–	–	–	–	–	–	–	–	–	–
	Santoprene	–	–	–	–	–	–	–	–	–	–	–
	Silicone Rubber	–	–	–	–	–	–	–	–	–	–	–
Other	Wood	●	●	●	●	●	●	●	●	●	●	●
	Leather	–	–	–	–	–	–	–	–	–	–	●
	Fabric	●	●	●	●	●	●	●	●	●	●	●
	Paper / Cardboard	●	●	●	●	●	●	●	●	●	●	–
	Glass wool Insulation	–	–	–	–	–	–	–	–	–	–	–

* Low peel strength, removable adhesive. Note: Bonding Metals - thin, light gauge only. Do not bond metal to metal. Apply the adhesive to the non-metal surface first.

IMPORTANT NOTE: These tables describe the relative adhesion to the listed surface within the product group, you may need to take into consideration factors such as:

Gap filling, ultimate joint strength, joint flexibility or joint thickness, environmental resistance, small or large surface area coverage, application methods, positioning time or cure time.

Please refer to individual product technical datasheets for more complete details of typical product performance.

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3M™ Scotch-Weld™ Cylinder Spray Adhesives

● Best Choice ● Good ○ Special surface preparation required – Not recommended

		74NF	98NF	70	77	94CA
Glass & Metal	Glass & Ceramics, Polished Stone	–	–	–	●	●
	Bare Aluminium	–	●	●	–	●
	Brass/Copper	–	○	○	○	○
	Bare Steel	–	●	●	●	●
Plastic	Low Surface Energy (PP - PS)	●	●	●	–	–
	Medium Surface Energy (Acrylic - ABS)	●	●	●	●	●
	High Surface Energy (PC - PU)	●	●	●	●	●
	FRP	●	●	●	●	●
	Nylon	–	–	–	–	–
	Flexible Vinyl	–*	–*	–	–	–
	Polyurethane Foam	●	●	●	–	–
	Painted Surface (PU, Acrylic)	–	–	●	●	●
	Painted Surface (Powdercoat)	–	–	●	●	●
	Expanded Polystyrene Foam (EPS)	–	–	●	●	–
Rubber	EPDM	–	–	–	–	–
	Neoprene , Natural Rubber	●	●	●	●	●
	Santoprene	–	–	–	–	–
	Silicone Rubber	–	–	–	–	–
Other	Wood	●	●	●	●	●
	Leather	●	●	●	●	●
	Fabric	●	●	●	●	●
	Paper / Cardboard	–	–	–	●	–
	Glass wool Insulation	●	●	●	–	●

At least one surface should be porous or partially porous - for example, when bonding to metal, the second surface could be wood. Bonding two non-porous surfaces can result in incomplete strength build-up.
* May work on some supported fabric backed vinyls - testing required.

3M™ Industrial Aerosol Adhesives

● Best Choice ● Good ○ Special surface preparation required – Not recommended

		73	74	75	76	77	80	90
Glass & Metal	Glass & Ceramics, Polished Stone	–	–	●	–	–	–	●
	Bare Aluminium	●	–	●	●	–	●	●
	Brass/Copper	–	–	–	–	○	–	–
	Bare Steel	●	–	●	●	●	●	●
Plastic	Low Surface Energy (PP - PS)	–	●	–	●	–	–	●
	Medium Surface Energy (Acrylic - ABS)	–	●	●	●	●	–	●
	High Surface Energy (PC - PU)	●	●	●	●	●	●	●
	FRP	●	●	●	●	●	●	●
	Nylon	–	–	–	–	–	●	●
	Flexible Vinyl	–	–	–	–*	–	●	–
	Polyurethane Foam	–	●	–	●	–	–	–
	Painted Surface (PU, Acrylic)	●	●	●	●	●	●	●
	Painted Surface (Powdercoat)	–	–	–	–	–	–	●
	Expanded Polystyrene Foam (EPS)	●	–	●	–	●	–	–
Rubber	EPDM	–	–	–	–	–	–	–
	Neoprene , Natural Rubber	–	●	–	–	●	●	●
	Santoprene	–	–	–	–	–	–	–
	Silicone Rubber	–	–	–	–	–	–	–
Other	Wood	–	●	–	●	●	●	●
	Leather	–	●	–	–	●	●	–
	Fabric	●	●	●	●	●	–	●
	Paper / Cardboard	●	–	●	–	●	–	–
	Glass wool Insulation	–	●	–	●	–	–	●

At least one surface should be porous or partially porous - for example, when bonding to metal, the second surface could be wood. Bonding two non-porous surfaces can result in incomplete strength build-up.
* May work on some supported fabric backed vinyls - testing required.

IMPORTANT NOTE: These tables describe the relative adhesion to the listed surface within the product group, you may need to take into consideration factors such as: Gap filling, ultimate joint strength, joint flexibility or joint thickness, environmental resistance, small or large surface area coverage, application methods, positioning time or cure time. Please refer to individual product technical datasheets for more complete details of typical product performance.

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3M™ Scotch-Weld™ Industrial Adhesives and 3M™ Fastbond™ Industrial Adhesives

● Best Choice ● Good ○ Special surface preparation required – Not recommended

		1099	4475	4693	847	847H	1300L	4799	10	77	90	1357	30NF	FB100	FB49
Glass & Metal	Glass & Ceramics, Polished Stone	–	●	●	–	–	–	–	–	–	●	–	–	–	–
	Bare Aluminium	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Brass/Copper	–	●	●	–	–	–	–	–	–	–	–	–	–	–
	Bare Steel	●	●	●	●	●	●	●	●	●	●	●	○	○	●
Plastic	Low Surface Energy (PP - PS)	–	–	●	–	–	–	–	–	●	●	–	–	–	–
	Medium Surface Energy (Acrylic - ABS)	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	High Surface Energy (PC - PU)	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	FRP	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Nylon	●	–	●	–	–	–	–	–	–	●	–	–	–	●
	Flexible Vinyl	●	●	–	–	–	●	–	●	–	–	●	●	●	–
	Polyurethane Foam	–	–	–	●	–	●	–	–	–	–	–	●	●	●
	Painted Surface (PU, Acrylic)	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Painted Surface (Powdercoat)	●	●	●	–	–	–	–	–	–	●	–	–	–	●
Expanded Polystyrene Foam (EPS)	–	–	–	–	–	–	–	–	–	●	–	●	●	●	
Rubber	EPDM	–	–	–	–	–	–	●	–	–	–	–	–	–	–
	Neoprene , Natural Rubber	●	●	●	●	●	●	●	●	–	●	●	●	●	–
	Santoprene	○	–	○	–	–	–	●	–	–	–	–	–	–	–
	Silicone Rubber	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Other	Wood	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Leather	●	●	●	●	●	●	●	●	–	–	●	●	●	–
	Fabric	–	–	–	–	–	●	–	–	●	●	●	●	●	●
	Paper / Cardboard	–	–	–	–	–	–	–	–	●	–	–	–	–	–
	Glass wool Insulation	–	–	–	–	–	–	–	–	–	–	–	●	●	●

When bonding metals or glass, the second surface must be porous, such as wood, and some plastics for example. Bonding two non-porous surfaces such as metal and glass can result in incomplete strength build-up.

3M™ VHB™ Tapes

● Best Choice ● Good ○ Special surface preparation required – Not recommended

		B23F	G23F	4941F	4956F	4957F	4991	4929	4930	4945	4949	4950	4951	4959	5652	5958FR	4905	4910
Glass & Metal	Glass & Ceramics, Polished Stone	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Bare Aluminium	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Brass/Copper	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	Bare Steel	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Plastic	Low Surface Energy (PP - PS)	–	–	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	Medium Surface Energy (Acrylic - ABS)	–	–	●	●	○	●	○	○	●	○	○	○	○	●	○	○	○
	High Surface Energy (PC - PU)	–	–	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	FRP	–	–	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Nylon	–	–	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	Flexible Vinyl	–	–	●	●	–	●	–	–	●	–	–	–	–	–	–	–	–
	Polyurethane Foam	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	Painted Surface (PU, Acrylic)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Painted Surface (Powdercoat)	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Expanded Polystyrene Foam (EPS)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Rubber	EPDM	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	Neoprene , Natural Rubber	–	–	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	Santoprene	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Other	Silicone Rubber	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	Wood	–	–	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	Leather	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	Fabric	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	Paper / Cardboard	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Glass wool Insulation	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	

Minimum surface preparation for glass is to clean with 3M™ AP-115. Please refer to the 3M™ VHB™ Surface Preparation Guide - adhesion to most surfaces can be improved with some surface preparation.

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Final product selection should be made only after evaluation of sample bonds.

3M™ Double Coated Acrylic Foam Tapes

● Best Choice ● Good ○ Special surface preparation required – Not recommended

		4611A	4612A	4615A
Glass & Metal	Glass & Ceramics, Polished Stone	●	●	●
	Bare Aluminium	●	●	●
	Brass/Copper	○	○	○
	Bare Steel	○	○	○
Plastic	Low Surface Energy (PP - PS)	○	○	○
	Medium Surface Energy (Acrylic - ABS)	○	○	○
	High Surface Energy (PC - PU)	●	●	●
	FRP	●	●	●
	Nylon	○	○	○
	Flexible Vinyl	●	●	●
	Polyurethane Foam	–	–	–
	Painted Surface (PU, Acrylic)	●	●	●
	Painted Surface (Powdercoat)	○	○	○
	Expanded Polystyrene Foam (EPS)	–	–	–
Rubber	EPDM	–	–	–
	Neoprene , Natural Rubber	○	○	○
	Santoprene	–	–	–
	Silicone Rubber	–	–	–
Other	Wood	○	○	○
	Leather	–	–	–
	Fabric	–	–	–
	Paper / Cardboard	–	–	–
	Glass wool Insulation	–	–	–

3M™ Double Coated Urethane Foam Tapes

● Best Choice ● Good ○ Special surface preparation required – Not recommended

		4004	4008	4016	4032	4085
Glass & Metal	Glass & Ceramics, Polished Stone	●	●	●	●	●
	Bare Aluminium	●	●	●	●	●
	Brass/Copper	●	●	●	●	○
	Bare Steel	●	●	●	●	●
Plastic	Low Surface Energy (PP - PS)	○	○	○	○	○
	Medium Surface Energy (Acrylic - ABS)	○	○	○	○	●
	High Surface Energy (PC - PU)	●	●	●	●	●
	FRP	●	●	●	●	●
	Nylon	○	○	○	○	●
	Flexible Vinyl	–	–	–	–	–
	Polyurethane Foam	–	–	–	–	–
	Painted Surface (PU, Acrylic)	●	●	●	●	●
	Painted Surface (Powdercoat)	○	○	○	○	●
	Expanded Polystyrene Foam (EPS)	–	–	–	–	–
Rubber	EPDM	–	–	–	–	–
	Neoprene , Natural Rubber	○	○	○	○	○
	Santoprene	–	–	–	–	–
	Silicone Rubber	–	–	–	–	–
Other	Wood	○	○	○	○	○
	Leather	–	–	–	–	–
	Fabric	–	–	–	–	–
	Paper / Cardboard	–	–	–	–	–
	Glass wool Insulation	–	–	–	–	–

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3M™ Double Coated Tapes

● Best Choice ● Good ○ Special surface preparation required – Not recommended

		401M	410M	415	9731 *	9415PC**	9425**	9075	CT6348
Glass & Metal	Glass & Ceramics, Polished Stone	–	–	–	●	●	●	●	●
	Bare Aluminium	●	●	–	●	●	●	●	●
	Brass/Copper	–	–	–	●	–	–	–	–
	Bare Steel	●	●	–	●	●	●	●	●
Plastic	Low Surface Energy (PP - PS)	●	●	–	–	–	–	●	●
	Medium Surface Energy (Acrylic - ABS)	●	●	–	●	●	●	●	●
	High Surface Energy (PC - PU)	●	●	●	●	●	●	●	●
	FRP	●	●	●	●	●	●	●	●
	Nylon	●	●	●	●	●	●	●	●
	Flexible Vinyl	–	–	–	–	–	–	–	–
	Polyurethane Foam	–	–	–	–	–	–	●	●
	Painted Surface (PU, Acrylic)	●	●	●	●	●	●	●	●
	Painted Surface (Powdercoat)	●	●	–	○	○	○	●	●
	Expanded Polystyrene Foam (EPS)	–	–	●	–	–	–	●	●
Rubber	EPDM	–	–	–	–	–	–	–	–
	Neoprene , Natural Rubber	●	●	–	–	–	–	–	–
	Santoprene	–	–	–	–	–	–	–	–
	Silicone Rubber	–	–	–	●*	–	–	–	–
Other	Wood	●	●	●	●	–	–	●	●
	Leather	–	–	–	–	–	–	–	–
	Fabric	●	●	●	–	●	●	●	●
	Paper / Cardboard	●	●	●	–	●	●	●	●
	Glass wool Insulation	–	–	–	–	–	–	–	–

* 9731 cannot bond silicone rubber to itself ** Removable adhesive

In general terms, use of adhesive transfer tapes should be limited to lightweight and/or thin and flexible substrates. The degree of surface contact may be limited when bonding rigid and large parts with thin tapes.

3M™ Adhesive Transfer Tapes

● Best Choice ● Good ○ Special surface preparation required – Not recommended

		F9469PC	F9473PC	467MP	468MP	950	9471	9472	9671LE	9672LE	9485PC	463	465	F9465PC
Glass & Metal	Glass & Ceramics, Polished Stone	●	●	●	●	–	●	●	●	●	●	–	–	●
	Bare Aluminium	●	●	●	●	–	●	●	●	●	●	–	–	●
	Brass/Copper	●	●	●	●	–	○	○	○	○	○	–	–	–
	Bare Steel	●	●	●	●	–	●	●	●	●	●	–	–	●
Plastic	Low Surface Energy (PP - PS)	○	○	○	○	–	●	●	●	●	●	–	–	–
	Medium Surface Energy (Acrylic - ABS)	○	○	●	●	–	●	●	●	●	●	–	–	●
	High Surface Energy (PC - PU)	●	●	●	●	●	●	●	●	●	●	●	●	●
	FRP	●	●	●	●	●	●	●	●	●	●	●	●	●
	Nylon	○	○	○	○	●	●	●	●	●	●	●	●	●
	Flexible Vinyl	–	–	–	–	–	–	–	–	–	–	–	–	●
	Polyurethane Foam	–	–	–	–	–	●	●	●	●	●	–	–	–
	Painted Surface (PU, Acrylic)	●	●	●	●	●	●	●	●	●	●	●	●	●
	Painted Surface (Powdercoat)	○	○	○	○	–	●	●	●	●	●	–	–	●
	Expanded Polystyrene Foam (EPS)	–	–	–	–	●	●	●	●	●	●	●	●	–
Rubber	EPDM	–	–	–	–	–	–	–	–	–	–	–	–	–
	Neoprene , Natural Rubber	○	○	○	○	–	●	●	○	○	●	–	–	–
	Santoprene	–	–	–	–	–	–	–	–	–	–	–	–	–
	Silicone Rubber	–	–	–	–	–	–	–	–	–	–	–	–	–
Other	Wood	○	○	○	○	●	●	●	●	●	●	●	●	–
	Leather	–	–	–	–	–	–	–	–	–	–	–	–	–
	Fabric	–	–	–	–	●	●	●	●	●	●	●	●	–
	Paper / Cardboard	–	–	–	–	●	●	●	–	–	●	●	●	–
	Glass wool Insulation	–	–	–	–	–	●	●	–	–	●	–	–	–

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Scotch® ATG Tapes

● Best Choice ● Good ○ Special surface preparation required – Not recommended

		969	926	904	924	928
Glass & Metal	Glass & Ceramics, Polished Stone	●	●	–	–	●
	Bare Aluminium	●	●	–	–	●
	Brass/Copper	●	●	–	–	–
	Bare Steel	●	●	–	–	●
Plastic	Low Surface Energy (PP - PS)	●	●	–	–	–
	Medium Surface Energy (Acrylic - ABS)	●	●	–	–	●
	High Surface Energy (PC - PU)	●	●	●	●	●
	FRP	●	●	●	●	●
	Nylon	●	●	●	●	●
	Flexible Vinyl	–	–	–	–	–
	Polyurethane Foam	●	●	–	–	–
	Painted Surface (PU, Acrylic)	●	●	●	●	●
	Painted Surface (Powdercoat)	●	●	–	–	○
	Expanded Polystyrene Foam (EPS)	●	●	●	●	–
Rubber	EPDM	–	–	–	–	–
	Neoprene , Natural Rubber	●	●	–	–	–
	Santoprene	–	–	–	–	–
	Silicone Rubber	–	–	–	–	–
Other	Wood	●	●	●	●	–
	Leather	–	–	–	–	–
	Fabric	●	●	●	●	●
	Paper / Cardboard	●	●	●	●	●
	Glass wool Insulation	●	●	–	–	–

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