

Industrial Adhesives and Tapes

3M™ Repositionable Thin Bonding Solutions



3M™ Repositionable Tapes offer the ability to preserve surfaces for temporary applications, protect substrates and high value product components and allow for product repair and rework. 3M™ Repositionable Products are engineered for a very targeted ultimate adhesion for a variety of high surface energy and low surface energy substrates.



3M™ Repositionable Tapes

Adhesive Profiles:

400 3M™ Acrylic Adhesive 400 offers good performance and peel strength even in low temperatures. Adhesive 400 performs well on many substrates and particularly good adhesion to many uncoated papers.

420 3M™ Acrylic Adhesive 420 offers high tack for initial adhesion and good shock resistance; even in low temperatures. Adhesive 420 will adhere to substrates in temperatures as low as 0°C.

1000 3M™ Acrylic Adhesive 1000 offers a low tack adhesion to intended substrates and is repositionable after initial application. Adhesive 1000 is removable from many films, rolls and papers without delamination from many paper stocks.

1050 3M™ Acrylic Adhesive 1050 is a medium tack adhesive and offers a stronger adhesion to intended substrates than Adhesive 1000. Adhesive 1050 is repositionable and allows for rework and clean removal with no adhesive residue on many substrates.

1070 3M™ Acrylic Adhesive 1070 is a medium tack adhesive with higher adhesion to intended substrates than that of Adhesive 1000 or Adhesive 1050 and is engineered to achieve an ultimate bond strength that still allows for repositionability.

3M™ Repositionable Product Comparison

Product	665	666	776	776FL
Tape Caliper	3.4mil [.089mm]	3.4mil [.089mm]	3mil [.076mm]	3mil [.076mm]
Liner Material	None	White Polyethylene 3mil [.076mm]	42# White Densified Kraft [DK] Paper 2.5mil [.06mm]	White Polyester [PET] 2mil [.05mm]
Liner Print	None	None	Remove To Expose Adhesive	None
Faceside Adhesive	400 Acrylic	1070 Acrylic	400 Acrylic	400 Acrylic
Faceside Adhesion	25oz/in [688g/25mm]	23oz/in [638g/25mm]	25oz/in [688g/25mm]	25oz/in [688g/25mm]
Carrier Type	1.4mil [.036mm] UPVC	1.4mil [.036mm] UPVC	1mil [.025mm] PET	1mil [.025mm] PET
Backside Adhesive	1070 Acrylic	400 Acrylic	1070 Acrylic	1070 Acrylic
Backside Adhesion	23oz/in [638g/25mm]	25oz/in [688g/25mm]	20oz/in [561g/25mm]	20oz/in [561g/25mm]
High Temperature Resistance	125°F [52°C]	125°F [52°C]	125°F [52°C]	125°F [52°C]
Relative Solvent Resistance	Good	Good	Good	Good
Relative U.V. Resistance	Excellent	Excellent	Excellent	Excellent
Clean Room Ready [film liner, plastic core]	No	No	No	Yes



Q: Why use a repositionable thin bonding pressure sensitive tape?

A: Repositionable tapes offer the ability to preserve surfaces for temporary applications, protect substrates and high value product components, and allow for product repair and rework. 3M™ Repositionable products are made of specialty adhesives that are chemically engineered to build a very targeted bond with substrates.

Q: What is the difference between Repositionable and Removable tapes?

A: Removable tapes are not always Repositionable- Repositionable tapes are a subset of the “Removable tapes” category of products. The products highlighted in this brochure are Repositionable because of engineered adhesive technology.

Q: Why does 3M™ make primarily differential double coated tapes in their Repositionable product portfolio?

A: 3M offers a variety of Repositionable tapes for a variety of applications across market segments. For applications that require repositionability, the tape should build a permanent bond with one substrate, and the backside [exposed side of adhesive when the roll is unwound] should build only a partial bond with the secondary substrate.

As substrates and ingredient products become more and more valuable to manufacturers, it may be appealing to use a product that builds only a partial bond with BOTH substrates. For this growing need, we have developed 3M™ Repositionable Tapes 776 & 776FL [classified as medium-tack/medium-tack solutions].

Q: Are Repositionable tapes reusable after they have been removed? How long can Repositionable tapes be left on intended substrates and still maintain removability?

A: Typically, 3M™ Repositionable tapes can be used again after removal, but products do lose some adhesion in second use. We use the word “Repositionable” to describe these products- rather than “Removable” because of the chemistry of the adhesive and the calculated bond that builds with intended substrates. The removability of 3M™ Repositionable products depends on the substrates being bonded and the environmental condition of the application.

Q: Are Repositionable products clean removable?

A: 3M™ Repositionable Products 9425 & 9425HT offer clean removal, while other 3M™ Repositionable products may leave behind some adhesive residue. 3M™ Repositionable Tape 9415PC is a favorite in posterizing applications because although it is not clean removable, it has appropriate adhesion for the application.

9415PC	9416	9425	9425HT	9449S
2mil [.05mm]	2mil [.05mm]	5.8mil [.147mm]	5.4mil [.137mm]	0.4mil [.01mm]
70# White Polycoated Kraft [PCK] Paper 5.6mil [.14mm]	70# White Polycoated Kraft [PCK] Paper 5.6mil [.14mm]	58# Tan Polycoated Kraft [PCK] Paper 5.4mil [.137mm]	58# Tan Polycoated Kraft [PCK] Paper 5.4mil [.137mm]	55# Densified Kraft [DK] Paper 3.0mil [.07mm]
None	None	None	None	None
400 Acrylic	400 Acrylic	420 Acrylic	420 Acrylic	1000 Acrylic
50oz/in [1377g/25mm]	50oz/in [1377g/25mm]	45oz/in [1147g/25mm]	45oz/in [1147g/25mm]	5oz/in [128g/25mm]
1mil [.025mm] PET	Tissue	1.4mil [.036mm] UPVC	1mil [.025mm] Clear PET	None
1000 Acrylic	1000 Acrylic	1050 Acrylic	1050 Acrylic	—
3oz/in [77g/25mm]	3oz/in [77g/25mm]	12oz/in [306g/25mm]	12oz/in [306g/25mm]	—
158°F [70°C]	158°F [70°C]	125°F [52°C]	250°F [121°C]	158°F [70°C]
Fair	Fair	Good	Good	Fair
Good	Good	Excellent	Excellent	Good
No	No	No	No	No



Product Selection:

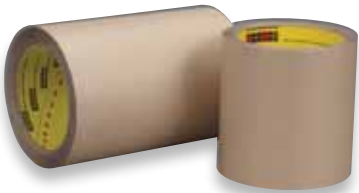
3M™ Double Coated Tapes

9415PC [PET] • 9416 [Tissue]

High tack/Low tack Differential Adhesion

Faceside Adhesive 400
Backside Adhesive 1000

3M™ Repositionable Tapes 9415PC and 9416 are double coated tapes that are ideal for applications where one part needs to be repositioned or removed.



3M™ Double Coated Tapes

9425HT [PET] • 9425 [UPVC]

High tack/Low tack Differential Adhesion

Faceside Adhesive 420
Backside Adhesive 1050

3M™ Repositionable Tapes 9425HT and 9425 are double coated tapes that are ideal for applications where one part needs to be repositioned or removed.



3M™ Double Coated Tapes

665 [UPVC] • 666 [UPVC]

Medium tack/Medium tack Differential Adhesion

Faceside Adhesive 400 • 1070
Backside Adhesive 1070 • 400

3M™ Repositionable Tapes 665 and 666 are double coated tapes that are ideal for applications where one or both parts need to be repositioned or removed.



3M™ Double Coated Tapes

776 [PET] • 776FL [PET]

Medium tack/Medium tack Differential Adhesion

Faceside Adhesive 400
Backside Adhesive 1070

3M™ Repositionable Tapes 776 and 776FL are double coated tapes that are ideal for applications where one or both parts need to be repositioned or removed.



3M™ Adhesive Transfer Tape

9449S [ATT]

Low tack Adhesion

Adhesive 1000

3M™ Repositionable Tape 9449S is an adhesive transfer tape that is ideal for applications where one part needs to be repositioned or removed.



Product Selection [construction details]


Product Number	Product Construction	Primary Liner	Adhesive I Type [Backside]	Carrier	Adhesive II Type [Faceside]	Total Tape Caliper [not including liner]	Master Roll Width
9449S	ATT	55# DK Paper 3.2mil [.08mm]	—	—	1000 .4mil [.01mm]	.4mil [.01mm]	48 inches*
665	DCT- UPVC	—	1070 1mil [.025mm]	Clear UPVC Film 1.4mil [.036mm]	400 1mil [.025mm]	3.4mil [.089mm]	46 inches*
666	DCT- UPVC	White Polyethylene 3mil [.076mm]	400 1mil [.025mm]	Clear UPVC Film 1.4mil [.036mm]	1070 1mil [.025mm]	3.4mil [.089mm]	46 inches*
9415PC	DCT- PET	70# White PCK Paper 5.6mil [.14mm]	1000 .2mil [.0051mm]	Clear PET Film 1mil [.025mm]	400 .8mil [.02mm]	2mil [.05 mm]	48 inches*
9416	DCT- Tissue	70# White PCK Paper 5.6mil [.14mm]	1000 .28mil [.007mm]	Tissue	400 .8mil [.02mm]	2mil [.05 mm]	47 inches*
776	DCT- PET	42# White DK Paper 2.5mil [.06mm]	1070 1mil [.025mm]	Clear PET Film 1mil [.025mm]	400 1mil [.025mm]	3mil [.076 mm]	48 inches*
776FL	DCT- PET	White Polyester [PET] 2mil [.05mm]	1070 1mil [.025mm]	Clear PET Film 1mil [.025mm]	400 1mil [.025mm]	3mil [.076 mm]	48 inches*
9425	DCT- UPVC	58# Tan PCK Paper 5.4mil [.137mm]	1050 2.3mil [.058mm]	Clear UPVC Film 1.4mil [.036mm]	420 2.3mil [.058mm]	5.8mil [.147mm]	48 inches*
9425HT	DCT- PET	58# Tan PCK Paper 5.4mil [.137mm]	1050 2.3mil [.058mm]	Clear PET Film 1mil [.025mm]	420 2.3mil [.058mm]	5.4mil [.137mm]	48 inches*

The caliper listed is based on a calculation from manufacturing controlled adhesive coat weights using a density of 1.110g/cc.
*Remember that our products are always available in metric dimensions as well.

Application Ideas

- Reclosable bags or envelopes
- Core starting and end tabbing of papers, foils and films
- Removable stickers and labels
- Point of purchase displays
- Book inserts
- Mounting promotional items
- Removable/changeable advertisements
- Temporary hold for protective packaging material, such as foam or cardboard used during shipment of manufactured goods
- Removable/changeable foam gasketing





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 specially 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.



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