

Vinyl Will Not Stick to the Application Surface:

- * Try using more squeegee pressure.
- * After positioning the vinyl to the sign surface, do not remove the application tape for at least 10-15 minutes. The adhesive on pressure sensitive vinyl increases its bond to surfaces considerably after a short period of time. This will give it a chance to build stronger adhesion to the sign surface than that of the tape's to the vinyl.
- * Is the application surface porous, rough, or "non-stick" such as polyethylene, a latex-painted wall, etc.? Pressure sensitive vinyl is designed to adhere to smooth, non-porous surfaces, Try suggestion stated in second bullet point above.
- * Are you transferring to irregular or riveted surfaces? Try a rivet brush to burnish the vinyl down into the low spots.
- * How cold is it? Pressure sensitive vinyl may resist sticking immediately to very cold surfaces. Ideally, application environments and surfaces should be at least 10°C. If this is not possible, try suggestion stated in second bullet point above.
- * Was the application surface cleaned thoroughly? If the surface is not cleaned properly, the vinyl will not stick.
- * Is the vinyl graphic/ lettering larger than 4 inches? Try a medium tack application tape, such as R Tape 4050 or 4050-RLA™, which should be easier to remove from larger cuts of vinyl.
- * Try wetting the back of the application tape with a fine mist of wet solution and wait one or two minutes before removing it from the vinyl lettering.
- * How old is the tape or vinyl? If over one year (unless otherwise stated by the manufacturer), it may have decreased slightly in adhesion.

Vinyl Will Not Lift From Liner Backing:

- * Try more squeegee pressure to tape and graphic.
- * Have you changed vinyl brand, type or colour? Sometimes, even a simple change in the colour of the same brand of vinyl can change application tape performance. See the R Tape Cross Reference Guide for suggestions, or contact R Tape Corporation for assistance.
- * Lift from the liner, rather than with the tape. See "Preferred Method to Remove Vinyl Lettering from the Liner."
- * How small is the cut lettering or graphic? Very small, intricate graphics may require a higher tack application tape, such as R Tape 4076/ 4076-RLA™, and in some extreme cases, an ultra high tack, such as R Tape 4885 "Super Stick."
- * Try leaving the application tape masked to the vinyl for a longer period of time. Depending on the adhesive design, some application tapes increase their adhesion to the vinyl by about 10% over the first twenty-four hours, which may be just enough to lift a difficult, small graphic.
- * Was the graphic cut too deeply? This could fuse the edge of the vinyl into the liner backing. If so, try wetting the back of the liner with a fine mist of wet solution or damp sponge, then attempt removal.
- * Was the application tape exposed to high temperatures and/ or humidity? If so, it could have lost some of its adhesion. See Storage Conditions & Shelf Life.
- * Are you using a medium tack application tape? If so, try a high tack. If unsure of your current product's tack level, contact R Tape Corporation.

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Authorised R Tape Distributor



Application Tape Guide Tips and Tricks

You Cannot Afford To Use The Wrong Tape

R Tape Corporation has been providing high quality pressure sensitive tapes and films to the Signmaking and Graphic Arts Industry since 1983, and continues to customize and design products to meet the ever-changing demands of the market. R Tape application tapes, premasks and overlaminating films continue to provide proven performance in all areas of sign making, screen printing, wide format digital printing and roll label printing applications.

Storage Conditions and Shelf Life

Application tape should be stored on end, at room temperature. Maximum shelf life of application tapes is one year when stored properly.

Application Tape Adhesives

Application tapes must have the correct adhesive strength or "tack" to lift the cut vinyl lettering from the liner backing, yet be able to remove easily from the vinyl lettering once it is transferred to the application surface.

Adhesive systems vary in application tapes. Some are rubber-based and others, acrylic. R Tape application tapes have mostly natural rubber-based adhesives, notably 4075, 4075-RLA™, 4050, 4050-RLA™ and 4000. Natural rubber-based adhesives are very stable. They have very little, if no build in adhesion when applied to vinyl for extended periods of time. They are also very smooth and consistent, therefore, will not transfer a "texture" to the vinyl lettering.

Acrylic-based application tapes have a tendency to increase their adhesion to vinyl. This may be desirable in some applications, but too much build can occur over time making it difficult to remove the tape from the vinyl lettering after transfer.

R Tape Product Reference Guide

Tack	Face Type	R Tape Product
Low	Standard Paper	4000
Low	Premium Paper	4700
Low	Clear Film	2540
Medium	Standard Paper	4050
Medium	Standard Paper	4050-RLA™
Medium	Premium Paper	4750
Medium	Premium Paper	4750-RLA™
Medium	Clear Film	* AT-42
Med/ High	Premium Paper	4760
Med/ High	Premium Paper	4760-RLA™
High	Standard Paper	* 4075
High	Standard Paper	* 4075-RLA™
High	Premium Paper	4775
High	Premium Paper	4775-RLA™
High	Clear Film	2575
Extra High	Standard Paper	4076
Extra High	Standard Paper	4076-RLA™
Ultra High	Premium	4885

* R Tape 4075, 4075-RLA™, and AT-42 Medium Tack Clear application tapes are the most widely used R Tape products for sign making. If a clear application tape is desired, AT-42 is comparable to 4075 in performance to vinyl.



Choosing Application Tape

Cut Size of Vinyl Lettering vs. Tack Level

Generally speaking, high tack application tapes are required to lift smaller vinyl lettering from the liner backing. Larger vinyl lettering may need a medium to low tack application tape for easier removal after transfer.

However, R Tape 4075 and 4075-RLA™ High Tack are “all purpose” application tapes, which can be used on any sized lettering for most sign making applications.

Lettering Size	Tape Tack Level
Less than 2”	High
4” or larger	Medium
12” or larger	Low

Sign Surfaces

Application surfaces, such as display board, glass or fabric present unique requirements. A high tack application tape may be difficult to remove, or can damage certain surfaces, such as display board, painted walls or ink from non-laminated printed media. Use a lower tack application tape or one which is specifically designed for such surfaces, (i.e. R Tape 2575 Clear for display board material). Textured, uneven surfaces, such as rivets on trailers sometimes cause standard weight paper application tapes to tear. If this is a problem, try using a premium (heavy weight) paper tape such as R Tape 4760/ 4760-RLA™ medium/ high tack or 4750/ 4750-RLA™ medium tack. Rivet brushes also aid in working the vinyl over rivets.

Surface/ Application Type	Suggested R Tape Product
Banners (Vinyl)	Medium to High Tack 4050* or 4075*
Boat/ marine Graphics	High Tack (Paper Tape for Wet Meth.) 4075*
Glass	Low to Medium Tack (Paper Tape for Wet Meth.) 4000, 4050*, AT-42
Fleet, caravan & Trailer Graphics	Low to Med/ High (Premium-wt. Paper Tape) 4700, 4750, 4760
Latex-painted Walls	Low Tack Tape 4000
Display Board	Low Tack 2575** or 2540
Vehicle Graphics	Medium to High 4075*/ AT42

*R Tape Conform Series™ with RLA™ versions can also be used.
**High Tack performance to vinyl only, not display board surface.

Type of Vinyl/ Transfer Medium

Application Tape performance sometimes varies between different brands of vinyl, or even different colours of the same vinyl brand. Different release liners also impact the “lifting” characteristics demanded of the tape.

R Tape Cross Reference Guide

Occasionally, the application tape you normally use will not lift cut lettering as easily when working with certain vinyl or foil products. If so, the following suggestions may be useful, and are based on general testing performed by R Tape Corporation. Uncontrollable outside influences may alter your results, therefore please test your specific application. Please also refer to the Troubleshooting section for additional tips.

*Refer to R Tape Product Reference Guide for descriptions, and “Cut Size of Vinyl Lettering...” for suggested tack level		
Vinyl Description	Routine	Lifting Trouble
Defraction/ Holographic	4050, 4050-RLA™ 4075, 4075-RLA™, 2540 (immediate t-fer)	4076, 4076-RLA™, 4885
Frosted	4050, 4050-RLA™ 4075, 4075-RLA™	4076, 4076-RLA™, 4885
Gold Leaf	AT-42, 4075, 4075-RLA™	4076, 4076-RLA™, 4885
Calendered vinyl	4050, 4050-RLA™ 4075, 4075-RLA™ AT-42, 2575	4076, 4076-RLA™
Metallic	4050, 4050-RLA™ 4076, 4075-RLA™, AT-42 (immediate t-fer), 2575 (immediate t-fer)	4076, 4076-RLA™
Cast Vinyl	4050, 4050-RLA™ 4075, 4075-RLA™, AT-42, 2575	4076, 4076-RLA™
Reflective	4075, 4075-RLA™, AT-42	4076, 4076-RLA™
Sandblast Rubber	N/A	4885, *2000, 2003

*2000 & 2003 are screen block out tapes, which have been used successfully with sandblast rubber, and not designed for vinyl transfer.

Using Application Tape to Transfer Graphics

Clean the Application Surface

Clean application surface thoroughly with vinegar or methanol. Clean glass twice to remove window cleaner build up. A solution of detergent in water (1 drop per 5 litre) will make a suitable application fluid. **Note:** Pressure sensitive vinyl may not stick to car windows treated with water-repellent products (such as silicone polishes), despite the use of cleaning agents. It could take up to six months before such window treatments dissipate enough for vinyl to adhere properly.

Preferred Method to Remove Vinyl Lettering from Liner

1. Flip graphic over so taped side is facing down
2. Starting at top corner, peel the liner backing at a 180° angle

Transferring Vinyl; Wet vs. Dry

Most of the time, vinyl graphics are applied to the sign surface dry. However, using the wet method technique (most commonly done with paper application tapes), allows the graphics to slide on the application surface for easier placement and registration. Standard weight paper application tapes can withstand being wet only for a short period of time. If the tape is “over-soaked” or remains wet too long, it will tear, fall apart, or leave adhesive residue on the vinyl.

Wet Technique with Paper Application Tapes

Application Steps

1. Spray a fine mist of solution onto the cleaned application surface **OR** to the adhesive side of the taped vinyl lettering.
2. “Float” lettering into place on the application surface.
3. Apply firm squeegee pressure from the centre out to remove bubbles and wrinkles from under the vinyl.
4. **Wait one or two minutes** to allow the vinyl to adhere.
5. Firmly squeegee a second time, to permanently fix the vinyl.
6. Carefully remove the tape by folding it back over itself at a 180° angle from top corner. *If tape does not remove easily from the vinyl, spray a light mist of wet solution to back side of tape and wait a few seconds. (This should help release the tape from the vinyl without leaving adhesive residue).
7. It will be necessary to squeegee the vinyl lettering one last time after removal of the application tape, particularly the edges. Hold a piece of used liner backing over the vinyl and apply firm squeegee pressure.
8. Pop any bubbles left in the vinyl with a pin.

Troubleshooting

Adhesive Residue on Vinyl When Using Wet Solution:

- * **Are you using too much solution?** It is not necessary to wet both the application surface and the adhesive side of the vinyl. Wet only one of these surfaces with a fine mist. Do not soak.
- * **Are you using a plastic application tape?** Plastic is not porous like paper, therefore traps liquid between the lettering and application surface. This can delay the vinyl’s adhesion to the surface and quickly break down the adhesive’s bond from the plastic tape. Try a paper application tape instead. (Note: R Tape AT-42 Clear EZ Tear has been used successfully in some wet method applications.)

Tape Tears or Falls Apart When Using Wet Solution:

- * **Refer to first bullet point above.** However, if certain jobs require more wet solution than usual, try a premium grade paper, such as R Tape 4775 High Tack or 4750 Medium Tack. The heavier weight paper holds up better and longer.