Finish Line Perf Line Bridge Line Design Line Tri Line Precision Line

#### **Product Description**

• 3M<sup>™</sup> Knifeless Tapes are filament tapes designed to cut films cleanly without risk of damaging substrates.

Product name	Description
Finish Line	<ul> <li>Semi-transparent green.</li> <li>Turns easily in any direction to follow contours and gentle curves.</li> <li>For single or multiple vinyl layer applications.</li> <li>For covered or hidden film edges.</li> <li>Cuts many vinyl wrap films, including 3M<sup>™</sup> Wrap Film 1080, 3M<sup>™</sup> Wrap Film 1380 and 3M<sup>™</sup> Wrap Film 2080.</li> </ul>
Perf Line	<ul> <li>Semi-transparent green.</li> <li>Use to cut laminated perforated window films and create a uniform relief cut along rubber molding before applying edge-sealing tape.</li> </ul>
Bridge Line	<ul> <li>Semi-transparent green.</li> <li>Used to achieve clean and uniform cuts in wide gaps between doors, fenders and rubber moldings.</li> <li>For single or multiple vinyl layer applications.</li> <li>Cuts many vinyl wrap films, including 3M<sup>™</sup> Wrap Film 1080, 3M<sup>™</sup> Wrap Film 1380 and 3M<sup>™</sup> Wrap Film 2080.</li> </ul>
Design Line	<ul> <li>Semi-transparent green.</li> <li>Create striping, accents and designs instead of using a knife or plotter.</li> <li>Stretches slightly and turns easily in any direction.</li> <li>Best option for very tight curves.</li> <li>Tape can be torn by hand for faster application.</li> <li>For single layer vinyl applications.</li> <li>Cuts many vinyl wrap films, including 3M<sup>™</sup> Wrap Film 1080, 3M<sup>™</sup> Wrap Film 1380 and 3M<sup>™</sup> Wrap Film 2080.</li> </ul>
Tri Line	<ul> <li>Semi-transparent green.</li> <li>Create pinstripes, gaps and butt seams instead of using a knife or plotter.</li> <li>Create different widths using 6 mm and 9 mm.</li> <li>Stretches slightly and turns easily in any direction to follow gentle curves.</li> <li>Tape can be torn by hand for faster application.</li> <li>For single layer vinyl applications (2 layers for butt seams).</li> <li>Cuts many vinyl wrap films, including 3M<sup>™</sup> Wrap Film 1080, 3M<sup>™</sup> Wrap Film 1380 and 3M<sup>™</sup> Wrap Film 2080.</li> </ul>

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• Semi-transparent green.

- Sharp filament cuts tougher films including 3M<sup>™</sup> Wrap Film 1080-GC451 Gloss Silver Chrome, Reflective Films such as 3M<sup>™</sup> Scotchlite<sup>™</sup> Print Wrap Film 780mC-10R; Post-it® Dry Erase Film, 3M<sup>™</sup> DI-NOC<sup>™</sup>, non-PVC films such as 3M<sup>™</sup> Envision<sup>™</sup> Print Wrap Film LX480mC, 3M<sup>™</sup> Envision<sup>™</sup> Print Wrap Film SV480mC, 3M<sup>™</sup> Envision<sup>™</sup> Print Film Series 48, 3M<sup>™</sup> Envision<sup>™</sup> Print Film Series 48C and 3M<sup>™</sup> Paint Protection Films\*; 3M<sup>™</sup> Wrap Film 1080, 3M<sup>™</sup> Wrap Film 1380 and 3M<sup>™</sup> Wrap Film 2080.
- Tape can be torn by hand for faster application.
- Stretches slightly and turns easily in any direction to follow gentle curves.
- For single or multiple layer vinyl applications.
- "Sandwich" design (embedded filament).

\*Test and approve when using Precision Line 3M<sup>™</sup> Knifeless Tape while cutting paint protection film.

### **Physical Properties**

The values displayed are the results of illustrative lab test measures made according to the indicated external norm and shall not be considered as a commitment from 3M

Value	Characteristic
Adhesive	Acrylic
Application temperature	60°F – 77°F (16 – 25°C)
Flammability	Flammability standards are different from country to country. Ask your local 3M contact for details, please.

### **Limited Remedy**

Unsuitable End Uses

This bulletin provides technical information only. Before using, the user must determine the suitability of the product for its required or intended use, and the user assumes all risk and liability whatsoever in connection therewith.

#### Limitations of liability

All questions of warranty and liability relating to this product are governed by the terms and conditions of the sale, subject, where applicable, to the prevailing law.

Outdoor applications or prolonged periods of sunlight as tape may become difficult to remove.

3M Commercial Solutions products are not tested against automotive manufacturer specifications!

### Shelf Life, Storage and Shipping

The shelf life as defined below remains an indicative and maximum data, subject to many external and non-controllable factors. It may never be interpreted as warranty.

The shelf life is never more than 12 months from the date of manufacture on the original box. Storage conditions: 39°F to 86°F (+4°C to +30°C), out of sunlight, original container in clean and dry area.

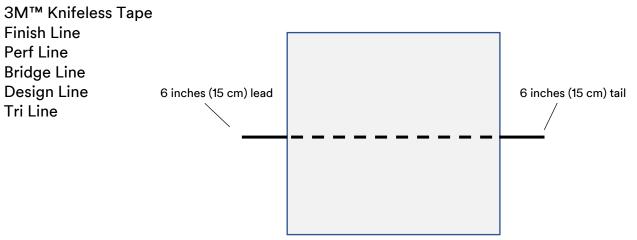
### **Health and Safety**

Handle any 3M<sup>™</sup> Knifeless Tape with care. DO NOT wrap around fingers or hand during the trimming operation or during the start of the trimming operation. Dispose of filament immediately after use.

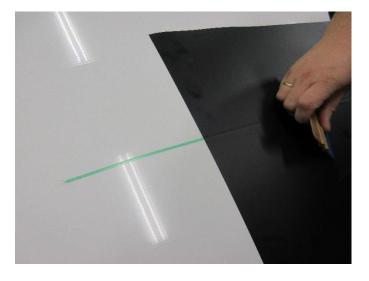
IMPORTANT! When using any equipment, always follow the manufacturer's instructions for safe operation.



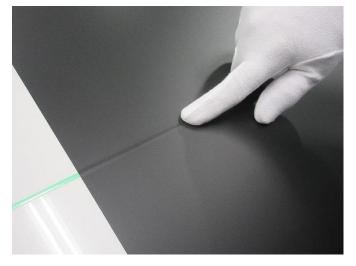
#### Instructions for Use



Begin with 6 inches (15 cm) of tape (before and after) where the graphic will be cut and lay down Knifeless Tape. Apply the film with pressure over the Knifeless Tape, leaving the lead and tail tape visible.



To remove air bubbles, press the film onto the Knifeless Tape again with your finger.

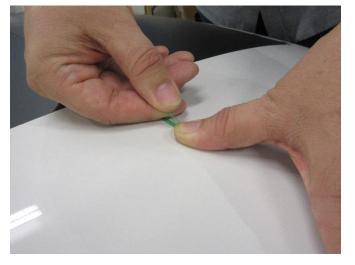




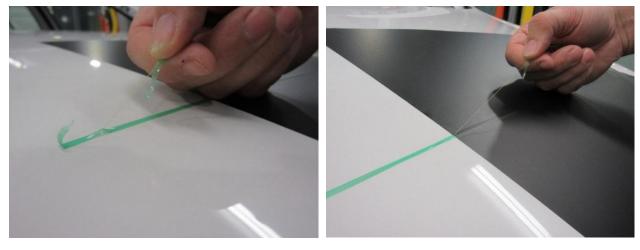
Fold the start of the tape back over itself approximately 3 inches (8 cm).



Press thumb firmly on folded edge, covering at least 0.4 inches (1 cm) tape. Firmly grasp the end of the tape with your thumb and index finger. Start with your two thumbs 0.4 inches (1 cm) apart. Bring thumbs together and give the tape a quick snap, breaking the carrier tape and exposing the filament (line).



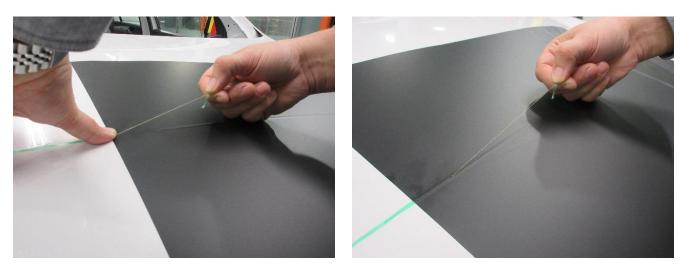
Pull the line back and not upward, stopping before the edge of the graphic.



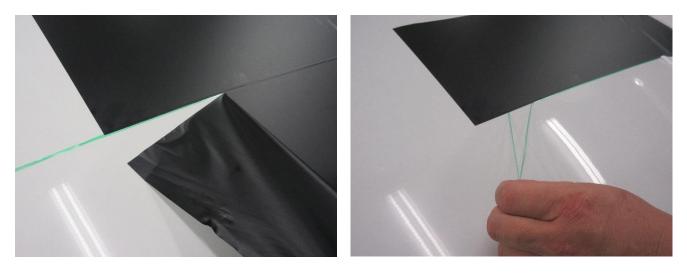


Press your thumb over both the filament and the graphic edge. Gently tug the filament to start cutting into the graphic, continuing to pull the line back and not upward. Ensure to pull the line in direction of the cut line.

Note: Tension applied during the application and cutting process should remove any slight distortions in the filament.



After cutting is finished, remove the excess film and the carrier tape from under the film. Please note that after cutting the carrier tape has split in two tapes. Both tapes need to be removed completely without residuals.



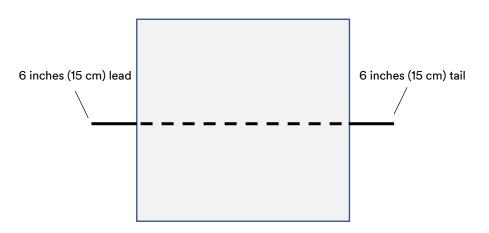
Heat the edges of the film and reapply the film edges with firm pressure.

#### **Important Notice**

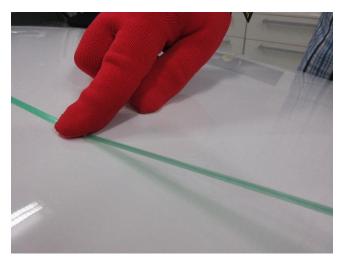
If multiple Knifeless Tapes are used mark the order of application and start cutting in the reverse order the Knifeless Tapes were applied (cut first with last Knifeless Tape applied).



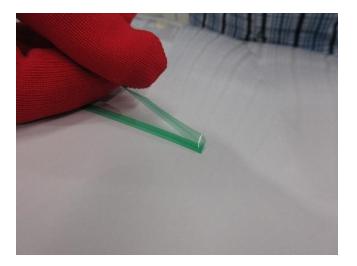
#### **3M™ Knifeless Tape** Precision Line



Begin with 6 inches (15 cm) of tape (before and after) where the graphic will be cut and lay down Knifeless Tape. Apply tape everywhere film will be cut.

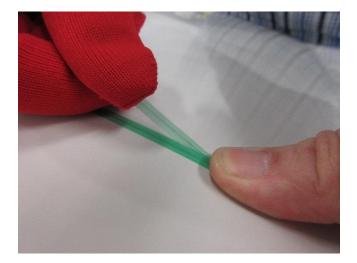


Start all lines (both lead and tail) by folding the start of the tape back over itself approximately 3 inches (8 cm).

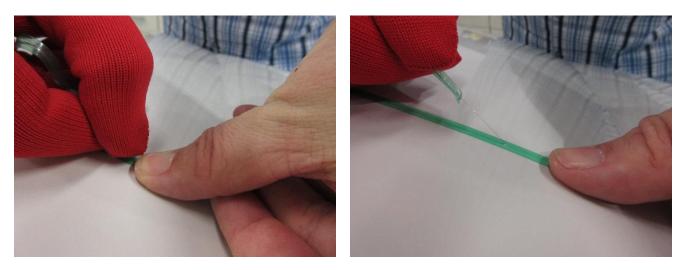




Press thumb firmly on folded edge, covering at least 0.4 inches (1 cm) tape.



Firmly grasp the end of the tape with your thumb and index finger positioning your two thumbs close together to start the filament. Gently pull the line to tear the carrier tape and expose the filament.

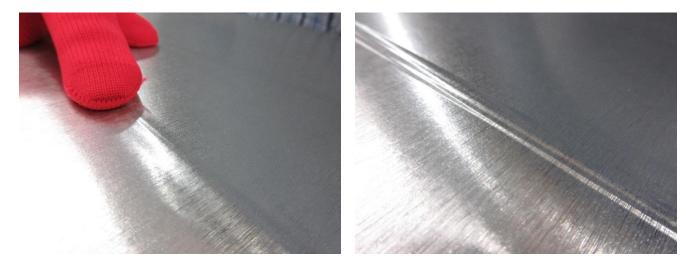


Tack end of filament to vehicle until ready to cut film.



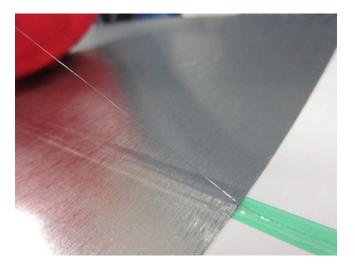


Apply the film with firm pressure over the tape, leaving the lead and tail tape visible. To remove air bubbles, press the film onto the 3M<sup>™</sup> Knifeless Tape again with your fingers.



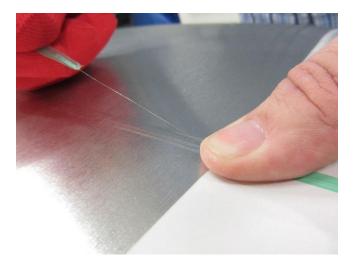
Take the filament and pull it back and not upward stopping before the edge of the graphic. Fold the filament over the graphic.

Note: Tension applied during the application and cutting process should remove any slight distortions in the filament.

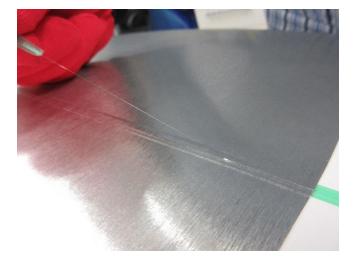




Press your thumb over both the filament and the graphic edge.

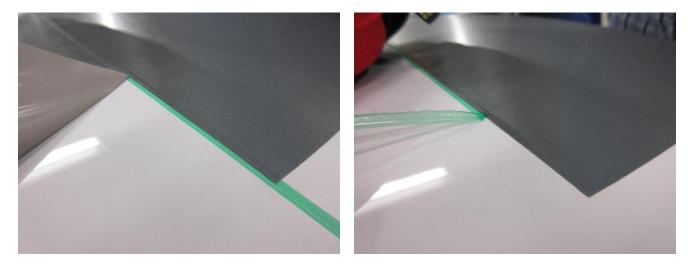


Gently tug the filament to start cutting into the graphic, continuing to pull the line back and not upward in direction of the cut line.

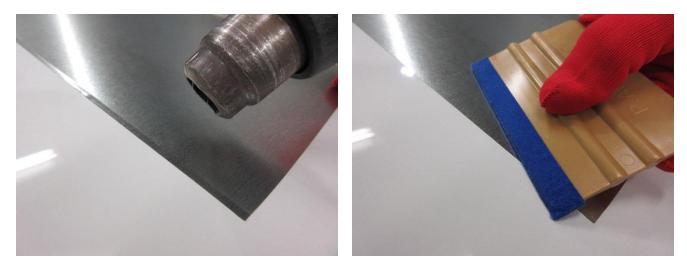




After cutting is finished, remove the excess film and the carrier tape from under the film. Assure that the carrier tape is completely removed without residuals.



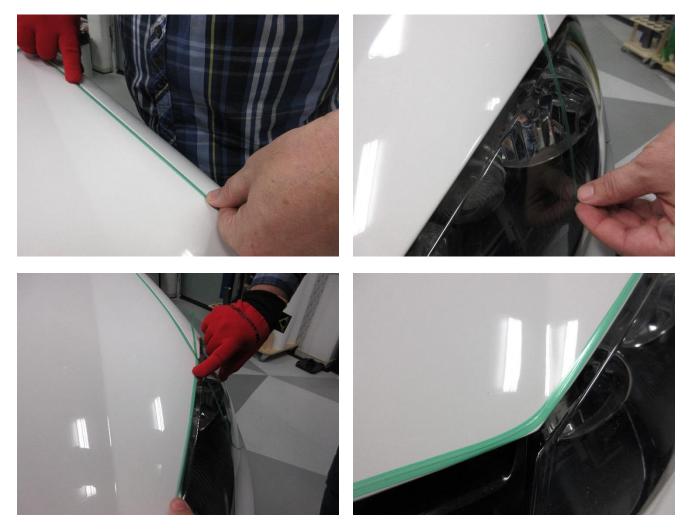
Heat the edges of the film and reapply the film edges with firm pressure.



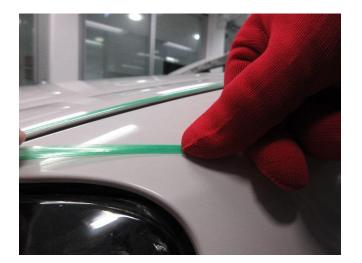


#### Cutting of 3M<sup>™</sup> Paint Protection Film with 3M<sup>™</sup> Knifeless Tape Precision Line

Begin with 6 inches (15 cm) of tape (before and after) where the film will be cut and lay down 3M<sup>™</sup> Knifeless Tape. Apply tape everywhere film will be cut with firm pressure.



Start all lines (both lead and tail) by folding the start of the tape back over itself approximately 3 inches (8 cm) and press thumb firmly on folded edge, covering at least 0.4 inches (1 cm) tape.





Firmly grasp the end of the tape with your thumb and index finger positioning your two thumbs close together to start the filament.



Gently pull the line to tear the carrier tape and expose the filament. Tack end of filament to vehicle until ready to cut film.



For corners it is recommended to apply several stripes of 3M<sup>™</sup> Knifeless Tape and to mark the order of application.





Repress the 3M<sup>™</sup> Knifeless Tape to achieve a good bond to the substrate.





The use of special application tools helps to remove air underneath the tape.



Apply the paint protection film with firm pressure over the tape, leaving the lead and tail tape visible, according to wet application instructions. The use of installation gel is recommended.





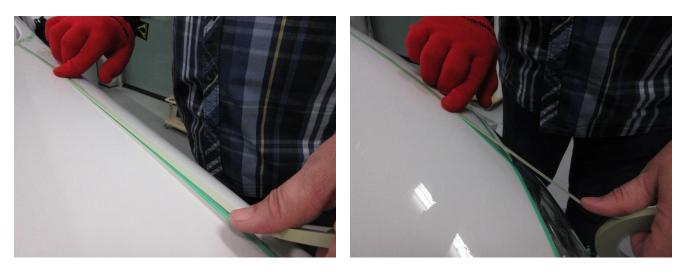
To remove air bubbles, press the paint protection film onto the 3M<sup>™</sup> Knifeless Tape again with your fingers. Before applying Cover Tape, remove moisture from the surface of the paint protection film.



The use of Scotch® Fine Line Tape 218 as Cover Tape is recommended for a cleaner cut.



Take the Cover Tape and apply it over film and 3M<sup>™</sup> Knifeless Tape. Apply the Cover Tape in the same order as the 3M<sup>™</sup> Knifeless Tape. Press the Cover Tape again firmly with your fingers.





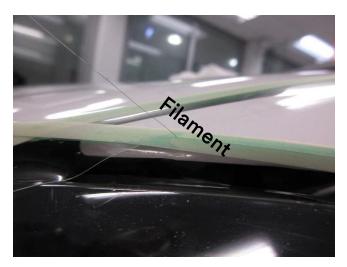
Now start the cutting process in reverse order the Knifeless Tapes were applied. Take the filament and pull it back and not upward, stopping before the edge of the Cover Tape.



Fold the filament over the Cover Tape and press your thumb on it.

Tug the filament to start cutting the Cover Tape, continuing to pull the line back and not upward in direction of the cut line until the edge of the paint protection film.

Note: Tension applied during the application and cutting process should remove any slight distortions in the filament.

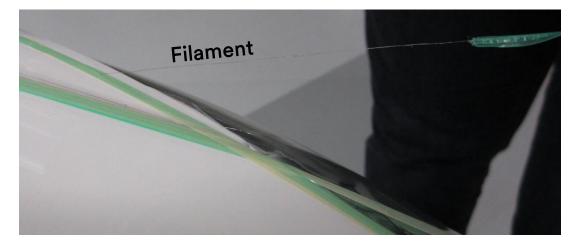




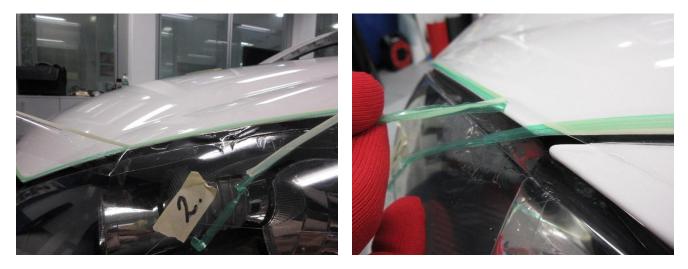
Fold the filament over the Cover Tape and film. Press your thumb over both the filament and the Cover Tape and film.



Tug the filament to start cutting, continuing to pull the line back and not upward in direction of the cut line.

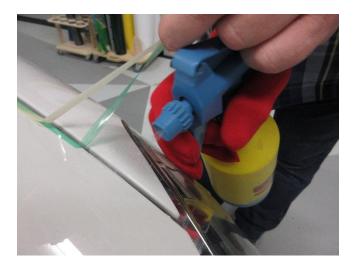


After cutting, remove film excess, Cover Tape and carrier tape.





If instead of installation gel, soapy water has been used for the application of paint protection film, wet the substrate under the film edge when removing the carrier tape.



Apply the film edge to the substrate and re-press the film edge with pressure.



#### **Important Notice**

If multiple 3M<sup>™</sup> Knifeless Tapes are used mark the order of application and start cutting in the reverse order the Knifeless Tapes were applied (cut first with last Knifeless Tape applied).

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