

Primerless Wheel Arch Attachment with 3M™ Acrylic Foam Tapes

Application Description

Wheel arches – sometimes known as wheel flares or finishers – are trim components surrounding the wheel opening. Using a tape for wheel arch attachment provides easier, secure attachment of the trim compared to mechanical attachments alone and provides a buffer to make sure the exterior trim components do not damage the paint while being more aesthetically pleasing. It also eliminates the need for punching holes in the sheet metal for pins which reduces noise and water paths, minimizes the risk of corrosion, and eliminates the need for mechanical attachments in the application. Tapes allow many additional benefits in trim applications, including:

- Design flexibility in appearance, materials, and processing, including multiple trim levels on the same sheet metal
- Improved fit and finish by accommodating for thermal expansion caused by temperature changes while simultaneously maintaining bondline appearance
- Helps prevent sink marks in the plastic caused by uneven cooling on molded parts due to reduction of clip brackets or clip towers to hold the mechanical clips



Primerless Attachment Tapes for Low and Medium Surface Energy Automotive Substrates

This family of 3M™ Acrylic Foam Tapes helps eliminate the time, expense and added process steps associated with adhesion promoters. All tapes feature viscoelastic acrylic foam cores for excellent stress relaxation under high application loads and tight bond line aesthetics. Double-sided adhesives for medium surface energy (MSE) or low surface energy (LSE) substrates are formulated for robust performance even on complex contours and difficult automotive surfaces. Break resistant liner can improve production up-time and offers a broader process window. 3M has a portfolio of primerless attachment tapes to meet your application needs.

Benefits of using 3M Acrylic Foam Tapes in Primerless Trim Applications

Primerless Adhesive

- Solutions for excellent primerless adhesion to both medium and low surface energy plastics
- Reduces the need for adhesion promoters or “primers” thereby lowering volatile organic compounds (VOC) outgassing and chemical usage, and the disposal thereof
- Simplifies production process and reduces the cost of labor and equipment associated with adhesion promoter usage as well as the cost of poor quality when primer is improperly applied
- Demonstrates high final adhesion and peel strength, as well as stable adhesive performance over a range of temperatures and environmental conditions

3M Acrylic Foam Tape core technology

- Engineered for a wide variety of temperature and humidity conditions
- Viscoelastic material enables conformable bond between part and vehicle body
- Designed to meet and exceed application requirements
- Unique foam core provides stress relaxation when high application loads are encountered, while maintaining tight bond-line aesthetics under normal conditions

3M Attachment Tape technical expertise and capabilities

- Global network of technical experts with strong attachment tape knowledge and experience
- Industry expertise, testing capabilities and application knowledge to support customers globally
- Application development and design review

Automation Ready Solutions

- Levelwound rolls enable process simplification through automation and increased efficiency
- Strong, tear-resistant liner enables fast assembly in automated applications

Product Offerings and Physical Properties

3M™ Acrylic Foam Tape RPX1000 Series (RPX1005, RPX1008, RPX1011, RPX1015)					
Substrate Compatibility	Differentiating Features	Available Thicknesses (mm)		Color	Liner
LSE Paints LSE Plastics: TPO, PP/EPDM, PP	<ul style="list-style-type: none">Developed for primerless performance to both LSE paints and plasticsBalanced performance	1.1	1.5	Dark Gray	Red, 3M Branded Break-Resistant Liner

Contact Information

The information provided in this technical document is intended as a guide for this product. For more information or help in selecting a 3M product for an application, please contact your 3M application engineering representative or [connect with a 3M expert](#).

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