

SilverTape™ AM9412

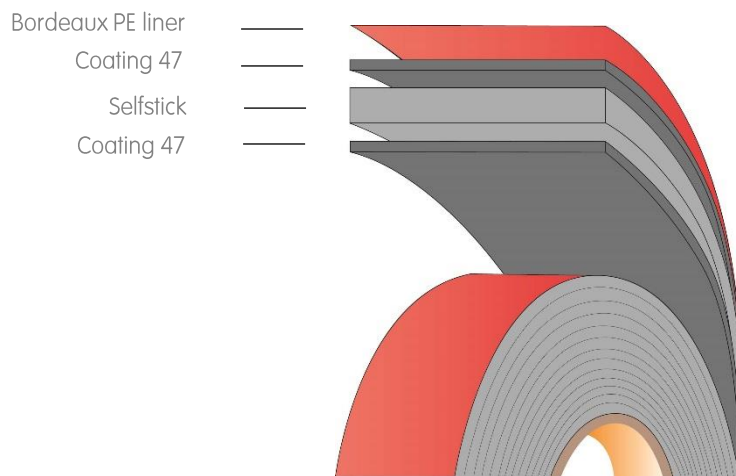
COATING 47

Product Information 12.2020

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SilverTape™ AM9412

This "All-rounder" is a double sided general purpose acrylic based adhesive tape. This tape is especially designed for a variety of materials in the present day automotive manufacturing with medium and high surface energy like PVC and ABS. It also is capable of absorbing the different thermal expansions of two materials. This acrylic foam tape has a high initial tack. In combination with a primer this SilverTape family guarantees excellent adhesion performance even on vehicle attachment parts with a low surface energy.



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|-------------------------|---|
| Thickness: | 1,2 mm (0.047 inch) ±10% |
| Core: | High Conformable soft foam acrylic |
| Adhesive: | Acrylic coating 47 |
| Density: | 840 kg/m ³ (52lb/ft ³) |
| Color: | Gray |
| Liner: | Bordeaux PE liner or Siliconised Paper liner |
| Temperature Resistance: | |
| Minimum | -40°C (-40°F) |
| Short term | 160°C (320°F) |
| Long term | 100°C (212°F) |

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|------------------------|---|---|-------------|------|--------------|-----|--------------|-----|---------------|--|---------------|--|-----------|
| 90° Peel Adhesion | N/10mm (lb/in) | 35 (20) | ASTM D3330 | | | | | | | | | | |
| Dynamic Shear Strength | kPa (lb/in ²) | 590 (86) | ASTM D-1002 | | | | | | | | | | |
| Normal Tensile | kPa (lb/in ²) | 590 (86) | ASTM D-897 | | | | | | | | | | |
| Static Shear Strength | g/312mm ² > 10,000 min. (7 days) | <table border="1"> <tr> <td>22°C (72°F)</td> <td>1000</td> </tr> <tr> <td>66°C (150°F)</td> <td>500</td> </tr> <tr> <td>93°C (200°F)</td> <td>500</td> </tr> <tr> <td>121°C (250°F)</td> <td></td> </tr> <tr> <td>177°C (350°F)</td> <td></td> </tr> </table> | 22°C (72°F) | 1000 | 66°C (150°F) | 500 | 93°C (200°F) | 500 | 121°C (250°F) | | 177°C (350°F) | | ASTM 3654 |
| 22°C (72°F) | 1000 | | | | | | | | | | | | |
| 66°C (150°F) | 500 | | | | | | | | | | | | |
| 93°C (200°F) | 500 | | | | | | | | | | | | |
| 121°C (250°F) | | | | | | | | | | | | | |
| 177°C (350°F) | | | | | | | | | | | | | |

Suitable for:

- various plastics with high and medium surface energy, glass, steel, aluminum, ceramic *

Available sizes:

- jumbo: 900mm x 330 m (76,2mm core)
- log: 900mm x 33/66 m (76,2mm core)
- slit roll: 4 – 250mm x 33/66 m (76,2mm core)
- spool roll: 5 – 25mm x max 1100 m (152,4mm core)



The best ideas are **the ones that stick**

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| Surface | Tape bonding is one of the most variable and easy technology mating substrates. Especially for assemblies made of different substrates having different thermal expansion rates bonding is a easy method for a long term durable joint. AFTC® tape allow a high variation in such substrates as all are available in different thickness. To ensure proper performance of such bonded part follow the following recommendations. |
| Design | A proper tape bond design means avoiding cleavage and peel forces. Design leading to pure shear and tensile loads have to be preferred to utilize full AFTC® SilverTape™ performance. |
| Surface Preparation | All bonding process require proper surface preparation / cleaning. This will enable AFTC® SilverTapes™ to get in direct contact with the surface creating full adhesion force. AFTC® SilverClean Dirt & Dust will remove most (polar) contaminations such as fingerprints and light oil. AFTC® SilverClean Oil & Grease is used for more non-polar contaminations as grease or mould release agents. Check suitable cleaner with surface test inks. Use lint free tissues for such operations. |
| Surface Modification | If simple cleaning cannot achieve appropriate adhesion forces the following surface modifications can be used. For larger scale process operations the use of e.g. flame activation can be used. On smaller scale / repair operations the use of AFTC® SilverPrime or AFTC® SilverActivate might be a solution. AFTC® SilverPrime 101(UV) is used for plastics or similar coatings which have a low surface energy (PE, PP). For glass AFTC® SilverPrime 201 is used when exposed to humid environments. AFTC® SilverActivate 301 is a "one step clean and prime" solution used for a variety of car paints. All primer / activators should only be used on the area for bonding. Excess material has to be cleaned immediately. For mill finished aluminium or stainless steel mild abrasion using AFTC® SilverPads followed by cleaning using AFTC® SilverClean Dirt & Dust is an option. |
| Temperature | After proper surface preparation / modification AFTC® SilverTapes™ should be applied at a temperature level above 18°C (65°F). For temperatures below this but above 0°C (32°F) use AFTC® low temperature SilverTapes™. |
| Pressure | Ensure immediate part assembly after liner removal. Pressure should be applied in rolling fashion at approx. 10N/cm ² . Recommended roller speed at 10 mm/s (24 in./min.). Higher velocities might require higher pressure or control with surface pressure films. AFTC® SilverTapes™ achieve their full strength after 24h at ambient temperature. Higher temperatures can accelerate strength development. |
| Storage & Shelf Life | Store AFTC® SilverTapes™ between 5° and 35°C (40°-95°F). Humid condition causing condensation should be avoided. For products with non-siliconized liners shelf life is 24 months; products with siliconized liners and AFTC splice-/tabbing tapes shelf life is at 12 months. |
| Disclaimer | All technical data in this product data sheet are based on AFTC's experience and external testing institutes. These values are representative for the overall performance. These data sheets are NOT to be used for specification purposes or for your own specific application. It is your responsibility to test whether the tape is suitable for your application or project. AFTC® will NOT be held liable for any information provided on this data sheet. Please follow the rules and regulations that are applicable in the state, county or country where the AFTC product(s) are being used. If you have any questions regarding the use of the AFTC® SilverTape™ acrylic foam tapes, please contact your local sales team. For questions on the standard warranty, please review our terms and conditions. For all other warranties, please review all documents that should have been agreed to in writing prior to the sale between AFTC® and the customer. SilverTape™ is a brand name of AFTC®. |

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