

AFTC High Performance Automotive Tapes

AM 9404, AM 9406, AM 9408, AM 9412

PRODUCT INFORMATION 01.2008

01.3

Application

AM 9404, AM 9406, AM 9408 and AM 9412 are double sided high performance acrylic-based adhesive tapes, which are especially designed for bonding steel, aluminium, and specific kinds of plastics, like PP, EPP and PP/EPDM in modern vehicle manufacturing. The tapes are capable of absorbing the differing thermal expansions of the two different materials. These AM types maintain high impact resistance even at temperatures below 0° Celsius.

AM 9404, AM 9406, AM 9408 and AM 9412 are very strong tapes and demonstrate excellent initial tack and adhesion performance during application. This property makes the Silvertape AM family ideal in a wide variety of applications in the automotive industry. Examples are body side moldings, roof moldings, inner tread plates (front / rear), outer tread plates (front / rear), front spoilers and rear spoilers. These AM tapes show excellent performance on powder coated and other critical lacquered materials .

General Information

AM 9404, AM 9406, AM 9408 and AM 9412 have a closed cell structure which is wind and water resistant. Because they are 100% acrylic based, they will form an almost indestructible bond between the materials. This AM family are resistant to UV, ageing, softening agents and solvents. These tapes bond immediately and offer a perfect resistance to the peel and shear loads that can affect a bond. These AM types are very well suited to absorb dynamic loads as they are viscoelastic, they can act as a sealant, form a permanent tension free bond, and are suitable to bond many different types of synthetic materials. Our production facilities have more than 15 years of experience with producing these acrylic foam tapes and are ISO 9002 certified.

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Structure

Tape Type:	AM 9404	AM 9406	AM 9408	AM 9412
Adhesive:	High Performance Acrylic			
Adhesive Carrier:	Conformable Acrylic closed foam			
Thickness:	0,4 mm	0,64 mm	0,8 mm	1,2 mm
Tolerance:	± 10%	± 10%	± 10%	± 10%
Density:	850	850	850	850
Tape Color:	Gray	Gray	Gray	Gray
Liner:	PE film			

Characteristics of the tape

Tape Type:	AM 9404	AM 9406	AM 9408	AM 9412
Peel Adhesion (ASTM D 3330)	320 N/100mm	350 N/100mm	370 N/100mm	390 N/100mm
Normal Tensile (ASTM 897)	700 kPa	700 kPa	700 kPa	700 kPa
Dynamic Shear Overlap (ASTM 1002)	450 kPa 20min. 600 kPa 24h.	400 kPa 20min. 600 kPa 24h.	380 kPa 20min. 650 kPa 24h.	350 kPa 20min. 650 kPa 24h.
Static Shear (ASTM 3654)	660 kPa	640 kPa	580 kPa	540 kPa
Solvent Resistance			Excellent	
U.V. Resistance			Excellent	
Temperature Resistance				
Long Term			100	
Short Term			160	

Available Sizes

Standard Length	33,0 m
Maximum Length	66,0 m
Core Diameter	75 mm
Width Tolerance	± 0,8 mm
Spool Roll	500 - 1000 lm1

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Manual

Production

Every good bond starts with good preparation. This preparation consists of several steps, such as cleaning, use of a primer and the right working area. Please ensure that your workshop area is in a dust free environment and has a minimum room temperature of 12° Celsius.

Cleaning

Before you begin, always check how dirty the materials that you want to bond are. If they are very highly contaminated with oil or grease use an industrial cleaner (Silverclean 2) or a heptane solution. After this, or if the surface is clean, you can use our Silverclean 1 which is a 50:50 Isopropanol solution. Ensure that you wipe the surface in just one direction, so that the dirt is wiped off. If you don't do this you will always leave some dust or dirt on the substrate.

Quality

The quality of the bond also depends largely on the contact that the two surfaces make with each other. Because of its viscoelasticity, the tape is able to flow into the microscopic pores of the materials. However, if there is a big surface mismatch or if the materials are not pressed together the bond will reach its end strength more slowly, or not at all. Therefore we advise you to put pressure on the bond of at least 100 kPa so that the tape can make a perfect bond between the two materials.

Maximum bond

The end strength will be reached much faster if you use our Primer 83. This enables the tape to reach its end bond within 5-20 minutes instead of taking 72 hours. On making the bond the tape without the primer normally has 50% of its final bond strength, with the primer this will be boosted up to 80%. If you have any questions regarding the primer or its manual or mechanical application, please contact our technical sales team.

Storage & Shelf live

Please make sure that the tape is stored in its original packaging, in a dry place and at a temperature of 21° Celsius. When the tape is stored under the right conditions it has a shelf life of 18 months.

Important information

All technical data in this product data sheet are based on our own experience and on that of external test institutes.

These values are representative and cannot automatically be used for your own specific application. You will first need to test whether the tape is suitable for your application or project. We must point out that you will need to follow the rules and regulations that are applicable in the state, county or country that you are using our product in. If you have any questions regarding the use of our acrylic foam tape please contact our technical service or technical sales team. For questions on the warranty we refer to our delivery terms and conditions, or another warranty document should be agreed on in writing between us and the customer. Silvertape is a brand name of AFTC Europe & Middle East BV.