

AFTC High Performance Tapes

HA 7305, HA 7306, HA 7308, HA 7310, HA 7312

PRODUCT INFORMATION 07.2010

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Application

SilverTape® HA 7305, HA 7306, HA 7308, HA 7310, HA 7312

Are Heat Activated Tapes constructed with 2 different adhesives, and mainly used because of their technical, economical and aesthetic advantages in comparison with traditional weather seal and gasket attachment methods, such as pins, staples, liquid adhesives and labor intensive processes. This heat activated tape demonstrates high adhesion and holding strength and allow design flexibility at lower overall system costs. Because of the homogenous bonding along the entire bonding surface the tape allows good resistance against external influences like moisture, dust and noise. These properties makes the SilverTape® HA family ideal in a wide variety of applications in the automotive (weather strips), marine, elastomeric components, rubber profiles (EPDM, TPE) and other industrial applications.

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SilverTape® HA is used for applications where the substrate surface is smooth and in situations where stress is minimal on the bond line. SilverTape® Heat Activated Tapes eliminate the whistling sound commonly heard in vehicles as it is providing a tight seal against air, water, moisture, dust and noise. Heat Activated Tapes are constructed with 2 different adhesives. The Heat Activated part is inactive at ambient temperatures. When exposed to heat sealing conditions, the heat activated part forms to most EPDM and TPE substrates an immediate, secure and permanent bond. The HA 73-serie maintains high impact resistance even at temperatures below 0 °Celsius. The Pressure Sensitive Adhesive (PSA) part on the other side of the 73-series is especially designed for bonding steel, aluminum, and specific kinds of plastics, mainly for car interior and exterior. The tapes are capable of absorbing the differing thermal expansions of the two different materials. The tapes show excellent resistance against UV, ageing and high temperatures.

General Information

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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 family is resistant to UV, ageing, softening agents and solvents (good plasticizer resistance). These tapes bond immediately and offer a perfect resistance to the peel and shear loads that can affect a bond. These 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 producing these acrylic foam tapes and are ISO 14001, ISO 9001 and ISO/TS 16949 certified.

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Structure

Tape type:	HA 7305	HA 7306	HA 7308	HA 7310	HA 7312
Adhesive:	High Performance Acrylic and Heat Activated Hot Melt combination				
Adhesive carrier:	Conformable Closed Cell Acrylic Foam (Viscoelastic)				
Description:	High Performance, Heat Activated				
Coating:	Direct (liner side) Heat Activated (open side)				
Thickness:	0,50 mm	0,64 mm	0,80 mm	1,00 mm	1,20 mm
Tolerance:	$\pm 0,1$ mm	$\pm 0,1$ mm	$\pm 0,1$ mm	$\pm 0,1$ mm	$\pm 0,1$ mm
Density:	840	840	840	840	840
Tape Color:	Gray	Gray	Gray	Gray	Gray
Liner:	PE film (Red or Blue, Red is standard; paper liner is optional)				

Tape Characteristics

Tape type:	HA 7305	HA 7306	HA 7308	HA 7310	HA 7312
Peel Adhesion (ASTM D 3330):	18 N/cm	19 N/cm	21 N/cm	24 N/cm	30 N/cm
T-Peel (24h. RT.):			24 N/cm		
(Standard Rubber; 21 days 70° C.):			25 N/cm		
Normal Tensile (ASTM 897):	730 kPa	680 kPa	640 kPa	610 kPa	590 kPa
Dynamic Shear:	370 kPa 20min.	370 kPa 20min.	360 kPa 20min.	350 kPa 20min.	340 kPa 20min.
Overlap (ASTM 1002):	680 kPa 24h.	660 kPa 24h.	640 kPa 24h.	610 kPa 24h.	590 kPa 24h.
Static Shear (ASTM 3654):	670 kPa	610 kPa	570 kPa	550 kPa	530 kPa
Solvent Resistance:			Excellent		
UV Resistance:			Excellent		
Temperature Resistance:			Excellent		

Available Sizes

Standard Length:	330 – 500 m
Maximum Length:	1000 m
Core Diameter:	75 – 130 mm
Standard Width Tolerance:	$\pm 0,4$ mm
Minimum # of slices:	3
Maximum # of slices:	6

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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 ca. 15 °Celsius.

Cleaning

Before you begin, always check how dirty the materials that you want to bond are. If they are highly contaminated with oil or grease, clean it with an industrial cleaner (SilverTape® Cleaner) or a heptanes solution. Even when the surface is clean, use our SilverTape® Cleaner, which is a 100% Isopropanol solution. Ensure that you wipe the surface in just one direction, so that the dirt is wiped off. If you do not 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 to allow the tape to make a perfect bond between the two materials.

Maximum Bond

The end strength will be reached much faster if you use our SilverTape® Primer no. 22. 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 and with use of the primer this will be boosted up to 80%. If you have any questions regarding the primer, the manual or the mechanical application, please contact our technical sales team.

Storage & Shelf life

Please make sure that the tape is stored in its original packaging, in a dry place and at a temperature of preferably between 4 °C and 38 °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 is based on our own experience and 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 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.