

AFTC High Performance Aerospace Tapes

AS 2330 and AS 2350 (White)

PRODUCT INFORMATION 01.2009

01.3

Application

AS 2330 and AS 2350

SilverTape AS finds wide use in manufacturing, maintenance and repair in the world wide aerospace industry. SilverTape are double sided high performance acrylic-based adhesive tapes, which are mainly used because of their technical, economical and aesthetic advantages in comparison with welds, screws and rivets. The SilverTape AS family is especially designed for bonding metal, specific kinds of plastics, painted surfaces, powder coated surfaces, and dissimilar materials in modern aerospace manufacturing.

AS 2330 and AS 2350

SilverTape AS unique bonding abilities allows using durable and lighter weight materials in aircrafts. SilverTape is capable of absorbing the differing thermal expansions of the two different materials. Because of the homogenous bonding along the entire bonding surface the tape allows good resistance against external influences like moisture, dust and noise. The tapes show excellent resistance against UV, ageing and high temperatures. These AS types maintain high impact resistance even at low temperatures and show excellent performance on powder coated and other critical lacquered materials in modern aerospace manufacturing.

General Information

AS 2330 and AS 2350

Have a closed cell structure which is wind and water resistant. Because they are 100% acrylic based, the tape will form an almost indestructible bond between the materials. This AS family is 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 AS 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 sites have more than 15 years of experience with producing these acrylic foam tapes and are ISO 14001, ISO 9001 and ISO/TS16949 certified. AS 9100 certification will be available third quarter 2009.

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Structure

Tape Type:	AS 2330	AS 2350
Adhesive:	High Performance Acrylic	
Adhesive Carrier:	Conformable Closed Cell Acrylic Foam	
Thickness: inch (mm)	0.025 (0,64)	0.045 (1,1)
Tolerance:	± 5%	± 5%
Density: lb/ft3 (kg/m3)	49 (790)	49 (790)
Tape Color:	White	White
Liner:	Red PE film	

Characteristics of the tape

Tape Type:	AS 2330	AS 2350
Peel Adhesion: lb/in2 (N/100mm) (ASTM D 3330)	20 (360)	25 (450)
Normal Tensile: lb/in2 (kPa) (ASTM 897)	174 (1200)	142 (980)
Dynamic Shear lb/in2 (kPa 20 min)	101 (700)	101 (700)
Overlap: lb/in2 (kPa 24 hours) (ASTM 1002)	170 (1170)	139 (960)
Static Shear: (kPa) (ASTM 3654)	600	500
Solvent Resistance:	Excellent	
UV Resistance:	Excellent	
Temperature Resistance		
Long term: F° (C°)	212 (100)	
Short term: F° (C°)	320 (160)	

Available Sizes

Standard Length: yards (meters)	36 (33)
Maximum Length: yards (meters)	72 (66)
Core Diameter: inch (mm)	3 (75)
Width tolerance:	± 5%

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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 54° Fahrenheit (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 70° Fahrenheit (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.