

AFTC High Performance Tapes

Industrial 64-serie LSE

PRODUCT INFORMATION 04.2010

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Application

SilverTape® Industrial 6404 LSE, 6406 LSE, 6408 LSE, 6411 LSE, 6415 LSE

Are double sided high performance acrylic based adhesive tapes, which are especially designed for a wide variety of materials with high, medium and low surface energy such as glass, glass / epoxy, sprouts, stainless steel, and galvanized steel. The tapes are capable of absorbing the differing thermal expansions of the two different materials. These types maintain high impact resistance even at temperatures below 0 °Celsius.

SilverTape® Industrial 6404 LSE, 6406 LSE, 6408 LSE, 6411 LSE, 6415 LSE

This modified multipurpose adhesive tape is suitable for coatings and plastics with low energy surfaces (LSE) and has been specifically developed for applications where the use of a primer or adhesion promoter is not needed. High performance tapes from the 64 series have an excellent initial tack and adhesion during the application of powder coated surfaces, plastics, glass and other high energy surfaces. Other features include good plasticizer resistance and very good adaptability. Thin or textured surfaces can be bonded full surface and tension free. Noteworthy is the good impact resistance of these 64 types at temperatures below 0 °Celsius. This next generation version is an improved version of the 63-serie.

General Information

SilverTape® Industrial 6404 LSE, 6406 LSE, 6408 LSE, 6411 LSE, 6415 LSE

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:	6404 LSE	6406 LSE	6408 LSE	6411 LSE	6415 LSE
Adhesive:	High Performance Acrylic				
Adhesive carrier:	Conformable Closed Cell Acrylic Foam				
Description:	LSE Ceramic / Silicones				
Coating:	Coating 60 (liner side)		Coating 60 (open side)		
Thickness:	0,40 mm	0,64 mm	0,80 mm	1,10 mm	1,50 mm
Tolerance:	± 0,1 mm	± 0,1 mm	± 0,1 mm	± 0,1 mm	± 0,1 mm
Density:	600	600	600	600	880
Tape Color:	Black	Black	Black	Black	Black
Liner:	Red PE film (paper liner is optional)				

Tape Characteristics

Tape type:	6404 LSE	6406 LSE	6408 LSE	6411 LSE	6415 LSE
Peel Adhesion (ASTM D 3330):	15 N/cm	17 N/cm	19 N/cm	24 N/cm	31 N/cm
Normal Tensile (ASTM 897):	730 kPa	730 kPa	730 kPa	650 kPa	610 kPa
Dynamic Shear:	740 kPa 20min.	720 kPa 20min.	680 kPa 20min.	650 kPa 20min.	620 kPa 20min.
Overlap (ASTM 1002):	900 kPa 24h.	880 kPa 24h.	780 kPa 24h.	710 kPa 24h.	700 kPa 24h.
Static Shear (ASTM 3654):	880 kPa	880 kPa	780 kPa	710 kPa	700 kPa
Solvent Resistance:				Excellent	
UV Resistance:				Excellent	
Temperature Resistance					
Long term:				90 °C	
Short term:				120 °C	

Available Sizes

Standard Length:	330 - 500 m
Maximum Length:	1000 m
Core Diameter:	75 - 130 mm
Standard Width Tolerance:	± 0,4 mm

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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.