

Filament Tapes for Safety and Security

FILAMENT TAPES

Our Strongest Tapes Are Designed to Protect



We are one of the world's leading manufacturers of selfadhesive products and system solutions. As a global partner, we offer a wide range of adhesive tape solutions, aimed at reliable fastening, reinforced packaging, and securing applications for transport. Our innovative solutions are designed to protect valuable goods and to prevent damage.

To this end, our filament tapes are based on fiberglassreinforced backings combined with strong and reliable adhesive systems. Consequently, they offer just the right mix of strength, versatility, and reliability for a great variety of applications. Our filament tapes have robust characteristics and may be used for different applications where safety and strong holding power are necessary. These tapes with fiberglass reinforcement provide security in cases where regular strapping tapes are not strong enough to withstand very heavy weight, strong abrasion, or extreme shear force. Our filament tapes are suitable for the strapping of pallets, temporary bundling of transport units, protection of glass edges, reinforcement of heavy cardboard boxes, and for many more applications where strength and reliable holding power are required.

Application support and expertise

In our application laboratories, we constantly analyze all kinds of materials in combination with our adhesive tape solutions.

Depending on customer-specific demands, our analysis includes tests on resistance to high and low temperatures, peel adhesion, shock and tension absorption, and much more.

Protection Strong Transport Fastening Bundling Reliable Palletizing Reinforcement

Product features

- Strong fiberglass reinforcement
- Reliable bond to many surfaces
- High resistance against abrasion

Benefits for the user

- Products and parts arrive undamaged at distribution partners, retail shops, and consumers, when reinforced with suitable packaging material
- Potential for reduction of costly and timeconsuming claims
- Less risk for damage to reputation and brand perception



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SECURE TRANSPORT

Protect Transport Units against Damage



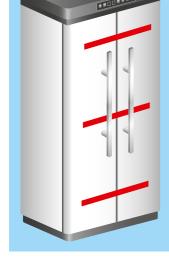
Prevent costly claims resulting from transport damage

The secure arrival of products at distribution partners and consumers is an important part of your business. Our filament tapes are designed to protect your valuable goods. Custom-made fiberglass-reinforced tapes reliably reinforce and protect transport units against many kinds of mechanical stress. Fiberglass filament tapes are a safe alternative when

it comes to protecting heavy and bulky packages against these challenges as they are strong enough to cope with many kinds of mechanical stress and shock impact common to logistics operations.



Bundling of glass windows



Benefits for the user

Product features

and breaking

needed

- Reliable protection against transport damage, when reinforced with suitable packaging material
- Potential for reduction of costs for claim handling
- Potential for reduction of costs resulting from transport damages

· High resistance against slipping, tearing,

Strong protection against wear and tear

· Stain- and adhesive-transfer-resistant where

PALLETIZING

Safely Bundle and Palletize Transport Units



Make sure transport units are safely bundled and reinforced

An especially important part of the logistics process is the bundling and palletizing of products. With a safe and reliable reinforcement, you are able to reduce the risk of damage to your products, while also protecting personnel against injuries happening from bundled units that have come loose during transportation or during picking and packing operations

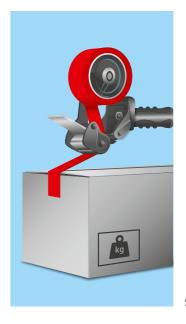
in warehouses. Our fiberglass filament tapes are especially suited to this kind of application because of their minimal elongation when exposed to shocks and mechanical stress. In addition, the high-tack synthetic rubber adhesive used in our filament tapes offer an immediate and strong bond, particularly to corrugated materials and surfaces.

Product features

- Strong adhesion especially to corrugated surfaces
- Strong resistance against mechanical and environmental stress during transport
- Shear-resistant adhesives to prevent tape from lifting up

Benefits for the user

- High level of safety for personnel handling transport units, when reinforced with suitable packaging material
- Potential for reduction of transport damages and claim handling costs for carriers and senders





Bundling of flexible floor-laying materials

Sealing of heavy boxes

Securing of commercial and home appliances

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STRONG PROTECTION

Hold Movable Parts in Place



Ensure movable and loose parts stay in place

Many industries require their products to be held and made secure during fabrication or processing operations. Whether the application is temporary or permanent, keeping the movable parts firmly in place is vital for transportation security and worker safety. Strong fiberglass filament tapes are an ideal solution for these applications because they are

strong enough to keep loose parts firmly in place during fastening. If you need a tape for temporary fastening of loose parts that are hard to handle, fiberglass filaments with stain- and adhesive-transfer-resistant adhesives are a safe and reliable choice.



Splicing of metal sheets for processing



Product features

- Strong adhesion to various surfaces
- Strong resistance against mechanical and environmental stress
- Stain- and adhesive-transfer-resistant where needed

Benefits for the user

- Reliable fastening of loose and moving parts, when reinforced with suitable packaging material
- Potential for reduction of costs resulting from damages caused by loose parts

PRODUCTS

Reliable Reinforcement for Your Transport Units

| Product | Benefits | Residue-free removal | Adhesive type | Tensile strength [N/cm] | Total thickness [µm] | Adhesion [N/cm] | Elongatio at break [%] |
|--------------------|--|-------------------------|-------------------|-------------------------------|----------------------------|--------------------|------------------------------|
| Premium filament | t tapes | | | | | | |
| tesa® 53398 | Reliable bond, even to slightly oily surfaces Strong shear resistance to prevent tape from lifting up High resistance against abrasion and nicks Clean removal from many substrates | •••• | Synthetic rubber | 800 | 195 | 6 | 6 |
| tesa® 53314 | Reliable bond, even to slightly oily surfaces Strong shear resistance to prevent tape from lifting up High resistance against abrasion and tearing Very good aging properties Clean removal from many substrates | •••• | Natural rubber | 680 | 220 | 5 | 5 |
| tesa® 53311 | Reliable bond, even to slightly oily surfaces Strong shear resistance to prevent tape from lifting up High resistance against abrasion and tearing Very good aging properties Clean removal from many substrates | ••• | Natural rubber | 583 | 190 | 5 | 5 |
| tesa® 53393 | Reliable bond, even to slightly oily surfaces Strong shear resistance to prevent tape from lifting up High resistance against abrasion and nicks Clean removal from many substrates | ••• | Synthetic rubber | 520 | 170 | 7 | 5 |
| Standard filament | t tapes | | | | | | |
| tesa® 53315 | Reliable bond, even to slightly oily surfaces Strong shear resistance to prevent tape from lifting up High resistance against abrasion and nicks | ••• | Synthetic rubber | 380 | 140 | 7 | 5 |
| tesa® 53319 | Very good adhesion to corrugated materials Perfect for general-purpose bundling applications Reliable fastening and protection of transport units | •• | Synthetic rubber | 320 | 108 | 6 | 5 |
| tesa® 4590 | Secure bond to a variety of corrugated and solid board surfaces Good tear resistance Reliable fastening and protection of transport units | | Synthetic rubber | 250 | 105 | 9 | 4 |
| tesa® 4591 | Secure bond to a variety of corrugated and solid board surfaces Highly tear-resistant cross-filament design Reliable fixation and protection of transport units | • | Synthetic rubber | 250 | 140 | 9.5 | 4 |
| Basic filament tap | pes | | | | | | |
| tesa® 53317 | Strong adhesion to corrugated materials Suitable for general-purpose bundling applications Reliable fastening and protection of transport units | • | Synthetic rubber | 190 | 95 | 6 | 5 |
| tesa® 53327 | Strong adhesion to corrugated materials Suitable for general-purpose bundling applications Reliable fixation and protection of transport units | • | Synthetic rubber | 175 | 95 | 6 | 4 |
| Specialty filament | t tapes | | | | | | |
| tesa® 4595 | Very good adhesion to a variety of surfaces Good conformability and high shock resistance Strong resistance against abrasion, tearing, and breaking | • | Synthetic rubber | 500 | 250 | 9 | 15 |
| tesa® 4578 | Very good adhesion to corrugated and solid board surfaces Secure bond even to nonpolar surfaces like PE and PP Highly tear-resistant cross-filament design | • | Synthetic rubber | 175 | 230 | 8 | 20 |

tesa® products prove their impressive quality day in, day out in demanding conditions and are regularly subjected to strict controls. All technical information and data above mentioned are provided to the best of our knowledge on the basis of our practical experience. They shall be considered as average values and are not appropriate for a specification. Therefore tesa SE can make no warranties, express or implied, including, but not limited to any implied warranty of merchantability or fitness for a particular purpose. The user is responsible for determining whether the tesa® product is fit for a particular purpose and suitable for the user's method of application. If you are in any doubt, our technical support staff will be glad to support you.

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Our management system is certified according to the standards ISO 9001, ISO/TS 16949, and ISO 14001.

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