

tesa® Solutions for Building Supply

tesa® tapes for the building industry

OVERVIEW FOLDER



tesa® self-adhesive tapes – sophisticated solutions for durable bonding

Reliable bonding of different substrates plays a key role in the building industry. In comparison to mechanical approaches such as welding and riveting, self-adhesive tapes are increasingly gaining in importance. Clean full-surface bonding, extreme load capacity, corrosion prevention, savings in time and costs, and good aesthetic results rank among the many advantages these high-quality adhesive tapes have to offer.

In addition to the mere joining process, adhesive tapes are able to fulfill additional requirements such as vibration and shock absorption, sealing against liquids, and many more.

The development of market-driven self-adhesive system solutions requires technical know-how and knowledge of industry-specific production processes. Its 75 years of experience in developing and manufacturing self-adhesive tapes have taken tesa to the top of the world market in many application areas utilizing bonding technologies.

Thanks to our high innovation rate and extensive consulting expertise, we are able to solve sophisticated bonding requirements in virtually any market and industry sector.

A particular challenge: constructive mounting. tesa offers a powerful portfolio of adhesive tapes, the specific properties of which take into account all the

complex requirements in constructive long-term bonding of different substrates. For example, these technologically advanced products compensate for uneven surfaces and differential thermal expansions of materials, resist static and dynamic forces, and are resistant to different solvents and temperatures.

The result is clean, durable bonding that can be integrated into production processes seamlessly, increasing efficiency.

Your advantages:

- Clean and fast process
- Durable bond
- No mechanical weakening of substrates
- Optimal aesthetic results

tesa® ACX^{plus} – Intelligent Bonding

Constructive bonding solutions with the new tesa® ACX technology

tesa® ACX^{plus} stands for the highest performance class within the tesa portfolio of sophisticated adhesive tapes. The double-sided adhesive tapes are

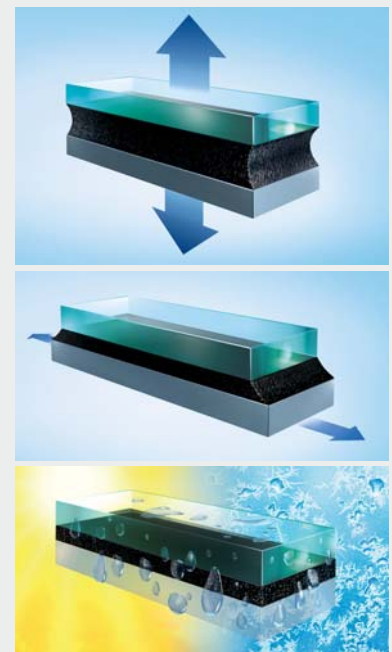


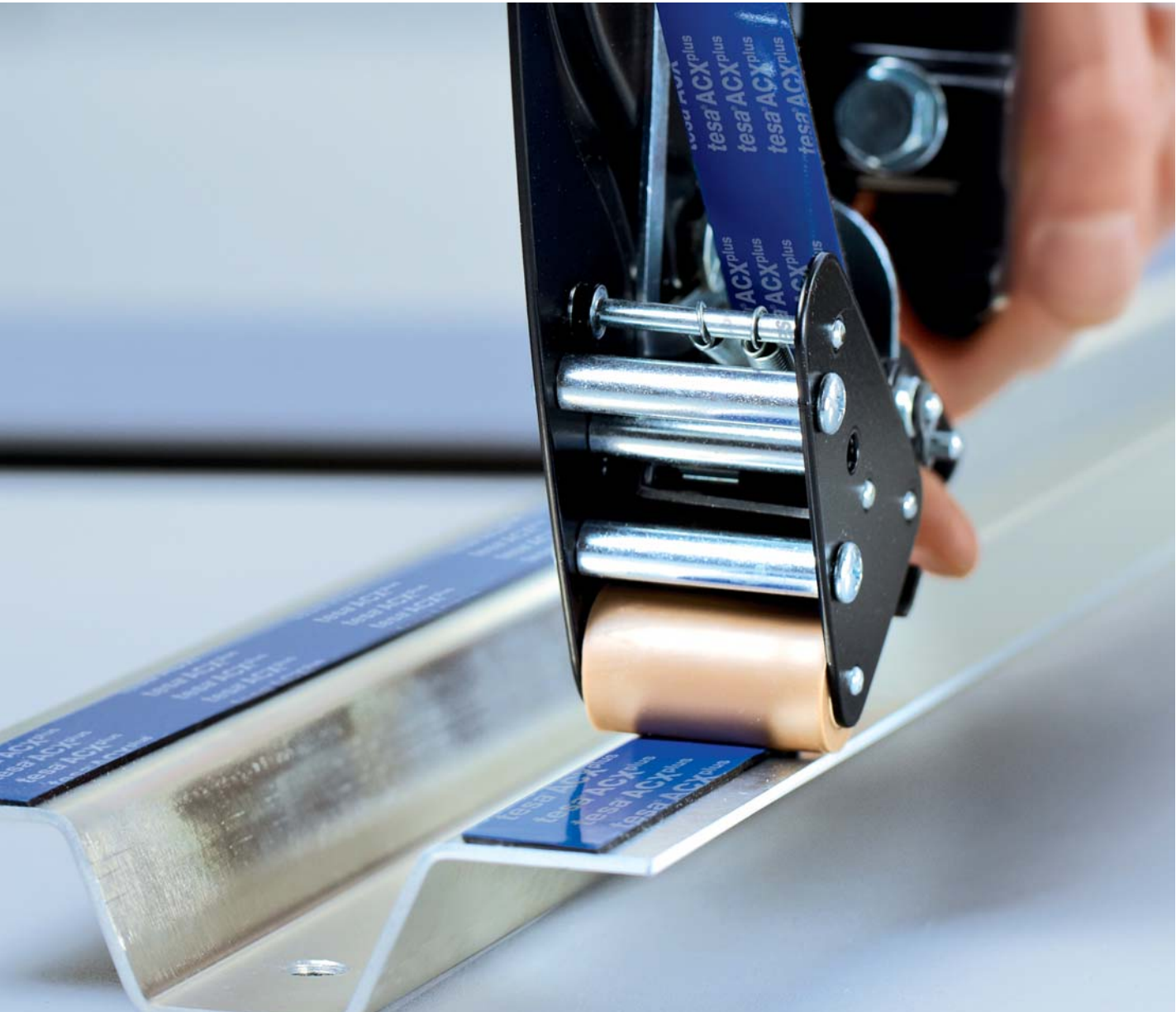
based on high-capacity acrylates and have been especially developed for constructive long-term bonding.

With the new, patented ACX production technology it is possible to realize innovative combinations of chemical components to offer products featuring **excellent viscoelasticity**.

This results in the following properties central to constructive bonding:

- **Bonding Power**
- **Stress Dissipation**
- **Temperature and Weather Resistance**



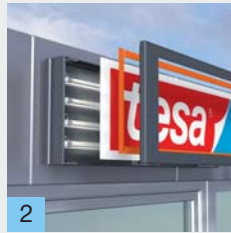


Application examples



Solar modules

Durable glass-to-metal bonding of solar panels to backrail systems.
Challenges: module's dead weight; wind load; outdoor conditions; differential thermal expansion; ageing



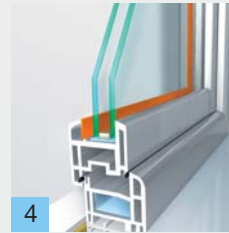
Signage & signs

Invisible fastening of translucent sheets to metal frameworks.
Challenges: heat; weathering; differential thermal expansion



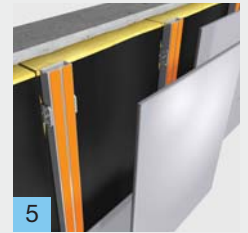
Window muntin bars

Permanent PVC-to-glass bonding of decorative muntin bars to windows.
Challenges: outdoor conditions; differential thermal expansion; compensation for gaps



Window dry glazing

Heavy-duty fixing of window panes to PVC frames.
Challenges: wind-load; differential thermal expansion; aging stability



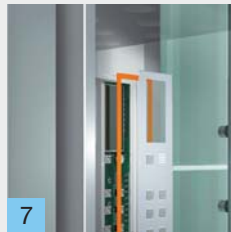
Façade panels

Concealed mounting of aluminum composite panels to metal sub-structures.
Challenges: panel's dead weight; outdoor conditions; differential thermal expansion; aging stability



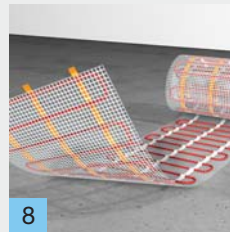
Elevator: reinforcement bars

High-strength bonding of reinforcing bars to thin metal elevator doors.
Challenges: compensation of gaps; temperature fluctuation; vibration and shocks



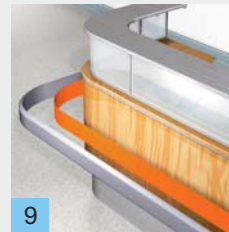
Elevator: operating panel

Firm metal-to-metal bonding of operating devices to elevator walls.
Challenges: limited space behind panel; good peel adhesion



Floor heating mats

Strong fixing of floor heating mats to the ground.
Challenges: rough surfaces; possible repositioning (balanced peel adhesion)



Bumper rails

Solid mounting of protecting bumper rails to walls or furniture.
Challenges: compensation for gaps; differential thermal expansion; cleaning chemicals; mechanical impacts



Glass partition walls

Transparent joining of glass elements, directly or with H-profiles.
Challenges: shock absorption; compensation for gaps; resistance to plasticizers



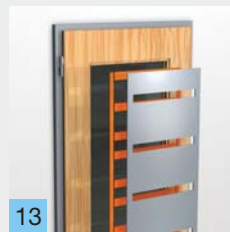
Furniture: decorative glass

Hidden fastening of colored glass panels to furniture, e.g. cabinet doors.
Challenges: glass element's dead weight; hard-to-bond surfaces; differential thermal expansion



Furniture: decorative trims

Stable mounting of PVC, MDF, wood or aluminum trims to glass or furniture.
Challenges: small gap behind trim; good peel adhesion to different substrates



Doors: decorative panels

Invisible bonding of decorative panels to doors.
Challenges: differential thermal expansion; outdoor conditions



AC and heating systems: decorative glass

Hidden fastening of colored glass panels to heaters/air conditioners.
Challenges: glass element's dead weight; hard-to-bond surfaces; differential thermal expansion; heat



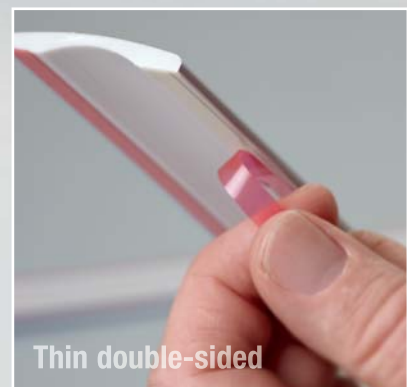
Lighting panels

Reliable bonding of glass or MDF panels to light housings.
Challenges: panel's dead weight; uneven surfaces; differential thermal expansion; heat



Which of your product needs could be solved by tesa® tapes?

| Product Group | Description / Features | Suitable for mounting challenges requiring... |
|--|--|--|
| tesa ACX^{plus}  | <p>Acrylic core tapes for demanding bonding applications</p> <ul style="list-style-type: none"> ■ Viscoelasticity ■ Stress dissipation ■ Temperature and weather resistance ■ Bonding power ■ Different thicknesses | <ul style="list-style-type: none"> ■ Long-term outdoor applications ■ Bonding of parts where tensions need to be compensated ■ Transparent bonding requirements ■ Bonding of hard to bond materials ■ Bonding of parts with uneven and irregular surfaces |
| PE-Foam  | <p>Double-sided tapes with PE-foam carrier</p> <ul style="list-style-type: none"> ■ Shock absorption ■ Gap filling ■ Dust and moisture seal ■ Different thicknesses | <ul style="list-style-type: none"> ■ Mounting of parts with uneven and irregular surfaces ■ Filling of constructive gaps ■ Compensation for tensions / shocks |
| Thin double-sided  | <p>Thin double-sided tapes with filmic or non-woven carrier</p> <ul style="list-style-type: none"> ■ Variety of products available with different adhesives ■ Different backing colors and liners ■ Conformable to substrates | <ul style="list-style-type: none"> ■ Conformability and flexibility ■ Thin tapes for minimal gaps between parts ■ Permanent fixing of light parts |
| Complementary Assortment  | Masking  | Packaging  |
| | | Transport Securing  |



Superior quality – global support

With over 50 subsidiaries tesa SE is present in 100 countries to market its products. Our trusted portfolio of more than 7,000 products is subject to the strictest quality controls and certifications. To best serve our customers all around the globe, our comprehensively certified products are backed by regionally managed warehouses that guarantee rapid and reliable delivery.

Benefit: Assured quality combined with a high service level.

At tesa, mutual trust and cooperation goes far beyond the implementation of adhesive tape solutions. Our consultants and application engineers guide the way to efficient and economic use of our products in all manufacturing steps – regardless of whether it is manual or

highly automated production processes. And our laboratories provide the means and tools necessary for extensive application testing to simulate a wide range of extreme requirements and analyze critical materials and surfaces.

Benefit: The best customer-specific solution that meets all requirements.

tesa offers you a wide range of different products, supporting you in all areas of your business. Choose tesa, and benefit from a strong partnership between yourself and your tape supplier for the building industry.



Exclusive Application Testing: In its application laboratories, tesa analyzes the customers' materials in combination with several adhesive tape solutions. Depending on the customer-specific demands, the analysis includes test on the resistance to UV-light, high and low temperatures, peel adhesion, shock and tension absorption and much more. The result: adhesive tape solutions perfectly suiting any technical application.

Detailed information

For more detailed information regarding other products and applications please refer to the following brochures:

- **tesa® ACX^{plus} tapes**
- **Double-sided foam tapes**
- **Thin double-sided tapes**



tesa® products prove their impressive quality day in, day out in demanding conditions and are regularly subjected to strict controls. All information and recommendations are provided to the best of our knowledge on the basis of our practical experience. Nevertheless 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. Therefore, 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 advise you.

HEADQUARTERS

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The tesa management system is certified according to the standards ISO 9001 and ISO 14001.