

Image Is Everything

tesa adhesive tapes for the signage industry
ASSORTMENT AND APPLICATION FOLDER



Benefit from Our Experience

tesa tape is one of the world's leading manufacturers of self adhesive tapes. Backed by more than a century of experience, the company's core product competence ranges from high-performance single-sided tapes to an extensive range of industry-leading double-sided tapes for bonding applications.



By supplying industries such as automotive, electronics, and paper production, tesa proves its ability to fulfill the most demanding customer requirements on a daily basis.

Take a Closer Look:

- Worldwide availability of thousands of products
- Certified to ISO standards: ISO 9001:2008; ISO/TS 16949:2009; ISO 14001:2004
- On-time delivery
- Local technical expertise and support

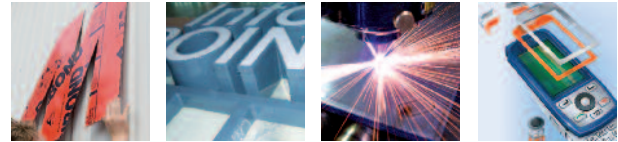


tesa Products Help to Improve Your Efficiency

Producing signs, which have to withstand demanding indoor and outdoor conditions for many years, requires expertise and high-quality products. tesa offers you both.

Use tesa tapes for sign manufacturing and installation to:

- **Save Time**
 - Fast and easy application; no tools required
 - No curing time necessary
 - Reliable; eliminate claims and rework
- **Save Costs**
 - Improve your process speed and reduce total process costs
 - Eliminate rework that is often necessary with mechanical fasteners
- **Enhance Design**
 - Optically clear bonds
 - Black tapes eliminate gray areas



tesa Understands Your Challenges

tesa tapes can improve your processes.

Faster, Stronger, Better

If you are welding and using screws in combination with silicone sealants, you have the opportunity to streamline your process. tesa tapes provide a secure bond, as well as reliable, long-term sealing.

Applications for tesa tapes:

- Mounting during the production process
- Mounting during installation
- Masking during spray painting or powder coating
- Protection of sensitive surfaces
- Permanent bonding between stacked or layered materials

tesa® ACX^{plus} - The Best Performance for Every Bonding Task

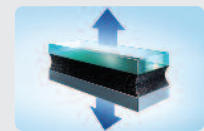
tesa® ACX^{plus} - The Core Is the Key

Meet the highest performing tape in the tesa assortment for the signage industry - the tesa® ACX^{plus} Family.

Bonding Power

tesa® ACX^{plus} is a powerful bonding technology designed for materials with different surface characteristics.

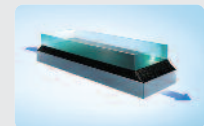
Its acrylic adhesive system secures optimal "wetting" and chemically adapts to the bonded surface. Moreover, the tape thickness can be adjusted to compensate for rough and uneven surfaces. The result is permanent contact and complete sealing of the joined surfaces. This leads to a high strength, long-term bond which will last for decades.



Stress Dissipation

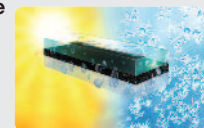
During the life cycle of a component, static and dynamic stresses act upon the constructive bond.

In some circumstances, stresses in the bonded joint are caused by different thermal elongations of the respective substrates. Due to the viscoelastic properties of tesa® ACX^{plus}, the ensuing stresses can be optimally dissipated to ensure a secure bond. Extreme temperature changes are tolerated, even for joining substrates with different elongation factors.



Temperature and Weather Resistance

tesa® ACX^{plus} provides high resistance to temperatures and different weather conditions. The main reason is the oxidation resistance of the fully saturated carbon chain, which is the foundation of the acrylates used in tesa® ACX^{plus}. Furthermore, the special curing chemistry forms an outstanding temperature-resistant polymer network, resulting in a superior bond that resists temperature, weather, ultraviolet light, and chemical influences.



tesa® Double-Sided Mounting Tapes for the Signage Industry

Panel and Letter Mounting



For mounting large sheets of common materials such as Dibond, Reynobond, PMMA¹, Aluminum ...

Recommended tesa® ACX^{plus} Tapes for Optically Clear Bonding:

tesa® 7054 ACX^{plus}, tesa® 7055 ACX^{plus}

Bonding Translucent Materials

- Acrylic core tape with very high transparency
- Available in two different thicknesses: 20mil and 40mil
- Very high initial and final bonding strength
- Compensates for thermal expansion of dissimilar materials
- Water and vapor tight, chemical resistant, and no yellowing, even after exposure to UV² light and outdoor elements
- First choice for mounting translucent materials

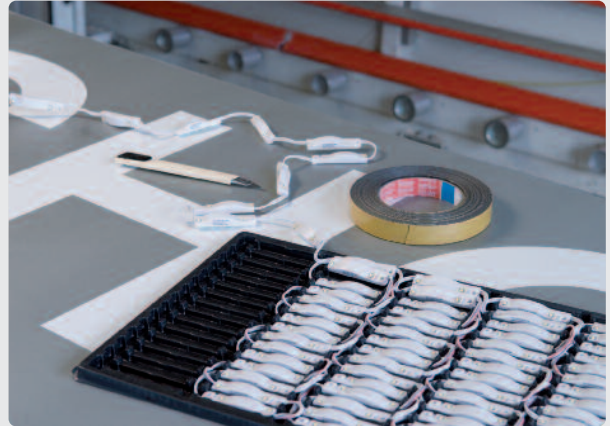
Recommended tesa® ACX^{plus} Tapes for Hard-to-Bond Substrates:

tesa® 7063 ACX^{plus}, tesa® 7065 ACX^{plus}

Hard-to-Bond Substrates

- Black acrylic core tape
- Bonding lower energy surfaces
- Bonding powder-coated surfaces
- Temperature and weather resistant
- Compensates for thermal expansion of dissimilar materials
- Available in two thickness: 32mil and 47mil

LED³ Mounting



For permanent bonding of LEDs to common surfaces such as Dibond, Reynobond, PMMA, Aluminum ...

Recommended tesa Tape for LED Mounting:

tesa® 62934

LED Mounting Tape

- High ultimate adhesive strength for secure bonding performance
- High-temperature resistance
- UV, water, aging, and cold shock resistant
- Specially-designed for mounting LEDs

Additional Recommended tesa Tapes for LED Mounting:

tesa® 7054 ACX^{plus}, tesa® 7055 ACX^{plus}

- Acrylic core tape with very high transparency
- Available in two different thicknesses: 20mil and 40mil
- Very high initial and final bonding strength
- Compensates for thermal expansion of dissimilar materials
- Water and vapor tight, chemical resistant, and no yellowing, even after exposure to UV light and outdoor elements
- For high-demand LED applications and enhanced security

tesa Tapes for General Assembly and Masking Applications

General Assembly



For metal and plastic parts with narrow constructive gaps

Recommended tesa Film Tapes:

tesa® 61010, tesa® 4970

Filmic Mounting Tapes

- Very good bonding performance, even on critical surfaces
- Excellent holding power at elevated temperatures
- Strong adhesion power and humidity resistance
- tesa® 61010 when transparency is needed
- tesa® 4970 for superior initial tack and slightly rough surfaces

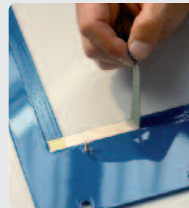
Recommended tesa Foam Tape:

tesa® 62934

Foam Mounting Tape

- Versatile adhesive for high immediate adhesion on numerous substrates
- High initial and ultimate adhesion level
- UV, water, aging, and cold shock resistant
- Specially-designed for rough surfaces and mounting of parts with gaps

Masking



tesa® 4309 High-Temperature Masking Tape

- Masking paint jobs with oven drying up to 120°C / 248°F
- Resistant to wet sanding
- Removable without leaving residues
- Specially-designed for oven drying processes and applications where a high adhesion level is needed

tesa® 53120 PV1 General-Purpose Masking Tape

- Suitable for general-purpose applications
- For bundling and protecting during production, storage, and transportation

tesa® 4334 Precision Mask

- Suitable for precise applications
- Guarantees very sharp-edged finishing
- Suitable for delicate surfaces
- Also suitable for all applications where residue-free removability, even after a long period, is needed

tesa® 4174 Fine-Line Masking Tape

- Specially-designed for two-tone applications with subsequent oven drying
- Flexible; no shrinkage
- Very good conformability to irregular shapes
- Outstanding workability in combination with its high performance, making it the first choice for all curved applications

tesa® 50600 Powder-Coating Tape

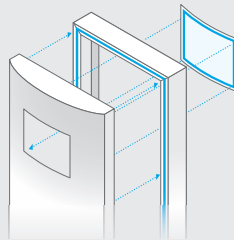
- Distinctive green color
- Conformable to most surfaces
- Temperature resistant up to 220°C / 428°F
- Provides sharp paint edges
- Also available on liner
- The solution for masking during powder coating processes

The tesa Tape Advantage

tesa® ACX^{plus} Advantages, Opportunities, and Hints

Bonding Different Materials

- The viscoelastic backing material compensates for different thermal elongation factors
- Very suitable for bonding metals (aluminum, steel) with plastics (PMMA, PVC⁴, PC⁵)
- Security due to high-performance adhesive system



e.g.
totem

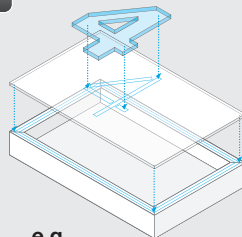


Plenty of different materials are in use for the production of signs. **tesa® ACX^{plus}** products offer you the opportunity to bond materials with highly different thermal elongation factors.

→ More freedom in the selection of materials

High Transparency

- Very high transparency (ultra-clear) with select products
- No yellowing, even after long-term UV and humidity exposure
- Bubble-free application supported by product consistency



e.g.
light box

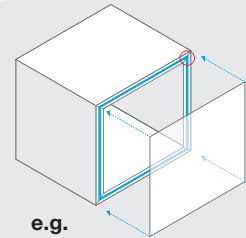


The high transparency allows an invisible bond of transparent materials. This results in a better appearance and higher value perception of the end product.

tesa® ACX^{plus} Advantages, Opportunities, and Hints

Sealing

- Vapor and water tight due to the solid acrylic backing material
- Very good conformability leads to perfect sealing, even on rough surfaces
- Perfect sealing, even on edges



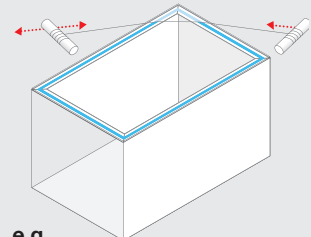
e.g.
box signs



Instead of screwing or welding with additional sealing, **tesa® ACX^{plus}** tapes provide both secure bond and reliable seal-in-one. By applying the tape in one of the ways shown, a perfect result will be achieved.

Demounting

- Removing or reworking purposes
- Maintenance or inspection



e.g.
shop signs

If there is a need to separate two parts mounted with a **tesa® ACX^{plus}** tape or a **tesa® PE⁶ Foam** tape, you only need a wire and two handles.

As shown in the illustration, you can easily cut the tape, starting at one of the edges. The remaining tape and adhesive residue can be easily removed by using a cleaning solution appropriate for the substrate.

tesa Tape Assortment for the Signage Industry

tesa® ACX^{plus} - Permanent, High Bond Mounting

Product	Backing	Thickness without liner [µm / mils]	Adhesive	Color	Steel		PMMA*		Aluminum		Glass	
					72 hours		72 hours		72 hours		72 hours	
					N/cm	oz/inch	N/cm	oz/inch	N/cm	oz/inch	N/cm	oz/inch
tesa® 7054	acrylic	500 / 20	pure acrylic	clear	19.0	173.6	12.0	109.6	19.0	173.6	17.0	155.3
tesa® 7055	acrylic	1000 / 40	pure acrylic	clear	24.0	219.3	17.0	155.3	24.0	219.3	24.0	219.3
tesa® 7063	acrylic	800 / 32	tackified acrylic	black	30.0	274.1	27.0	246.7	32.0	292.4	32.0	292.4
tesa® 7065	acrylic	1200 / 47	tackified acrylic	black	40.0	365.4	35.0	319.8	35.0	319.8	36.0	328.9

*polymethyl-methacrylate

Mounting

Product	Backing	Thickness without liner [µm / mils]	Adhesive	Color	Steel		PC		Aluminum		PVC	
					14 days		14 days		14 days		14 days	
					N/cm	oz/inch	N/cm	oz/inch	N/cm	oz/inch	N/cm	oz/inch
tesa® 62934	PE-foam	800 / 32	tackified acrylic	black	17.0	155.3	17.0	155.3	17.0	155.3	17.0	155.3
tesa® 61010 PV4	PET	205 / 8	tackified acrylic	clear	14.0	127.9	13.4	122.4	12.6	115.1	12.8	116.9
tesa® 4970	PVC	240 / 9.5	tackified acrylic	white	14.8	135.2	13.8	135.2	12.4	113.3	13.5	123.3
tesa® 4985	n/a	50 / 2	tackified acrylic	clear	11.1	101.4	9.7	88.6	10.0	91.4	9.4	85.9
tesa® 4985 PV9	n/a	50 / 2	tackified acrylic	clear	11.1	101.4	9.7	88.6	10.0	91.4	9.4	85.9
tesa® 6013	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Masking

Product	Backing	Thickness [µm / mils]	Adhesive	Color	Adhesion to Steel		Tensile Strength		Temperature Resistance [1 hour]
					N/cm	lbs/inch	N/cm	lbs/inch	
tesa® 53120 PV1	creped paper	132 / 5.2	natural rubber	cream	3.4	31.1	36.8	21.0	50°C / 122°F
tesa® 4334	flat paper	90 / 3.5	acrylic	yellow	1.9	17.4	25.0	14.3	60°C / 140°F
tesa® 4309	creped paper	170 / 6.7	natural rubber	brown	3.5	32.0	47.0	26.8	120°C / 248°F
tesa® 4174	PVC	110 / 4.3	natural rubber	olive	3.4	31.1	25.0	14.3	150°C / 302°F
tesa® 50600	PET	80 / 3.2	silicone	green	4.0	36.5	>40.0	>23.0	220°C / 428°F
tesa® 4848 PV1	PE	48 / 1.9	acrylic	clear	0.8	7.3	12.0	6.9	60°C / 140°F

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 tape, inc. can make no warranties, expressed or implied, including, but not limited to any implied warranty or merchantability or fitness for a particular purpose. The user, therefore, 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.

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