HIGHLIGHT EFFICIENCY

High Quality Adhesive Tape Solutions for Solar Panel Production
APPLICATION SOLUTIONS FOR EFFICIENT PANEL MANUFACTURING

Over the past years we have built an in-depth understanding of tape applications in module assembly. This is why we are able to offer individual solutions consisting of quality products, technical advice and application systems. As a result you get a reliable bonding quality and efficient, easy-to-implement processes.

Benefits from a partnership with tesa
- Experienced solar team
- Global presence and supply
- Industry proven product range
- Application solution packages

We are dedicated to the solar industry

Solar frame bonding
- Tape is a trusted method for solar frame bonding. It enables an aesthetic finish, design flexibility and a fast, clean assembly process. Choose tesa for our experience and benefit from a proven solution.

tesa® 62505, 62510, 62512 FrameSelect
- High-quality double-sided PE foam tape
- A module assortment allows for optimal solutions
- External proof of performance: UL, TÜV test reports

Cell fixation and alignment
- To hold stringed solar cells in place during the lamination process.

tesa® 4129
- Single-sided PET tape
- Thin and transparent
- Ageing and UV resistant
- High temperature resistance

Hole covering
- Used to temporarily cover holes and slits in the back sheet and hold ribbons down during lamination.

tesa® 50600
- High temperature masking
- 200°C temperature resistance
- Excellent removability after lamination

Ribbon black out
- Covers unsealable charge collectors or bus bars improving the solar module design.

tesa® 7250
- Black single-sided PET tape
- Excellent light blocking
- High dielectric strength
- Temperature and ageing resistant

Permanent edge protection
- Gives frameless modules an esthetic finish and reduces the module break rate.

tesa® 65052
- Black edge protection tape
- Stackable
- Durable and weathering resistant
- Easy to apply

Permanent back rail bonding
- Reliable, permanent bonding solution for back rails. No curing time needed, higher assembly speed.

tesa® ACrylon 7078 – Acrylic foam tape
- High bonding strength
- Stress dissipating core
- High temperature and weathering resistance

Bus bar mounting
- Optimized bus bar mounting and insulation for manual and automated processes.

tesa® 4983 – Double-sided PET tape
- Adhesive design
- High dielectric strength
- High temperature resistance

Cable fixation
- To secure photovoltaic cables during shipment and installation.

tesa® 64284 – Strapping tape
- Easy and clean removal
- Very good adhesion to many substrates
- Tear resistant backing

Spooled products
- Our spooled tapes in long length and superior slitting quality enable an efficient framing process.

- For mass production
- Designed to run in leading automated framing units

Engineered application tools for industrial use

Our solutions go beyond tape. We provide technical consulting and proven application tools, in order to implement fast and reliable production processes at our customers. Our application systems are easy to use and enable constant quality. We are scaling them depending on production output and complexity. Benefit from an individual and cost-efficient solution.
## Technical product information

<table>
<thead>
<tr>
<th>Product</th>
<th>Backing</th>
<th>Adhesive type</th>
<th>Color</th>
<th>Liner</th>
<th>Thickness [µm]</th>
<th>Temperature resistance long/short [°C]</th>
<th>Ultimate adhesion to steel [N/cm]</th>
<th>UL file number</th>
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</thead>
<tbody>
<tr>
<td><strong>Double-sided adhesive tapes</strong></td>
<td></td>
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<tr>
<td>tesa® 62508</td>
<td>PE foam (closed cell)</td>
<td>Tackified acrylic</td>
<td>Black/white</td>
<td>Filmic/paper</td>
<td>800</td>
<td>85/85</td>
<td>&gt; 13,5</td>
<td>QIHE2.E334507</td>
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<td>85/85</td>
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<td>Pure acrylic</td>
<td>Black</td>
<td>Filmic/paper</td>
<td>1,500</td>
<td>120/200</td>
<td>&gt; 35,0</td>
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<td>Pure acrylic</td>
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<td>Filmic/paper</td>
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<td>MOPP</td>
<td>Natural rubber</td>
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<td>4,0</td>
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<td>2,3</td>
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</table>

1) Failure mode: Foam splitting
2) Based on comparative adhesion test after damp heat storage (IEC 61215)
3) Residue free removal after short term temperature exposure
4) Long term operating temperature according to UL test method

### tesa® 62508, 62510, 62512 – TÜV Rheinland
- Adhesive strength after IEC 61215 climate (Report no. 21217921-001)
- Adhesive strength after salt mist climate: (Report no. 21217921-002)
- Adhesive strength after damp heat 2000h (Report no. 21217921-003)

### tesa® ACXplus 7078 – MPA Stuttgart
- Dynamic strength after storage in detergent (Report no. 52140-902-17240)

See file numbers above.

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