

# Solutions for the Electronics Industry



tesa® Electronics Assortment 2011

INDUSTRY FOLDER

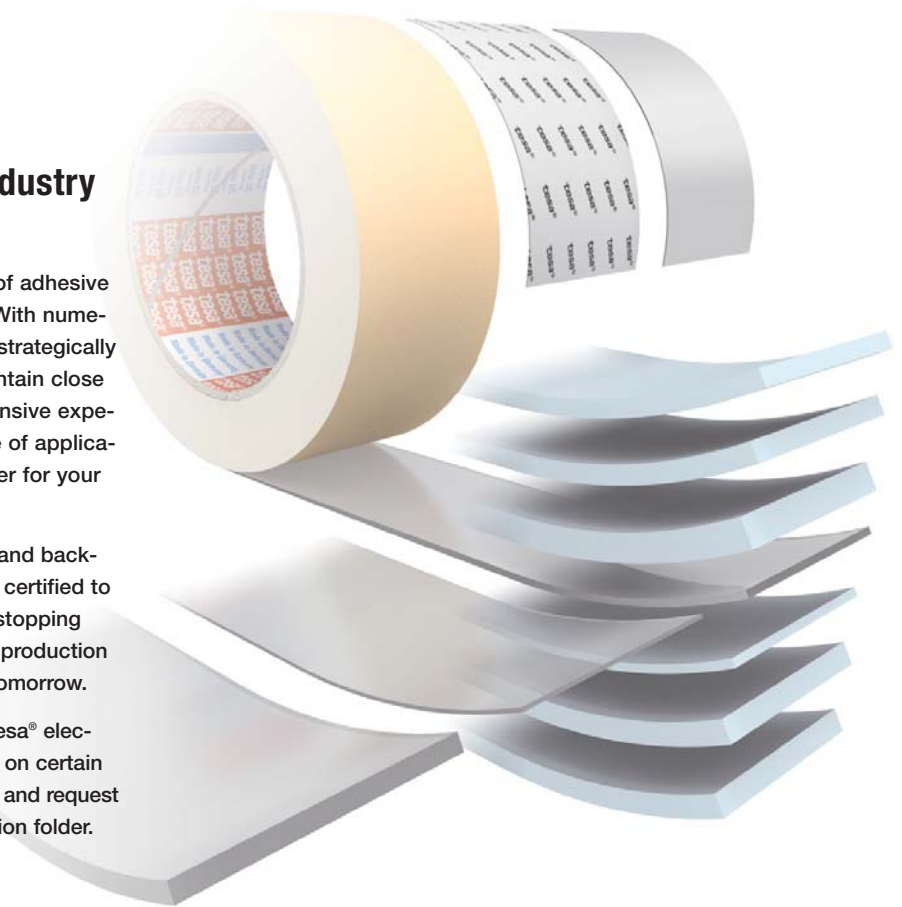


## Solutions for the Electronics Industry

tesa is one of the leading global manufacturers of adhesive solutions dedicated to the electronics industry. With numerous sales offices, R&D and production facilities strategically positioned around the world, we are able to maintain close relations with our global customers. Having extensive experience in the industry and a profound knowledge of applications and the value chain, tesa is the ideal partner for your innovative goals.

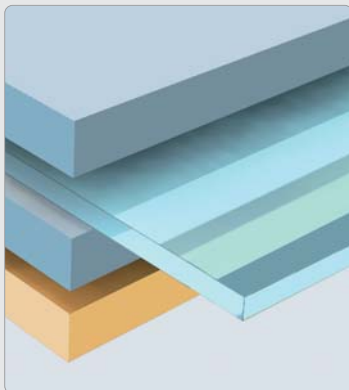
With a broad range of different adhesives, liners and backings, our assortment offers well proven solutions certified to international quality standards... and we are not stopping there. tesa continuously invests in R&D and new production technology to meet your needs both today and tomorrow.

This industry folder provides an overview of the tesa® electronics assortment. For more specific information on certain product types and applications, please contact us and request your personal copy of a tesa® product or application folder.



### Backings/Carriers

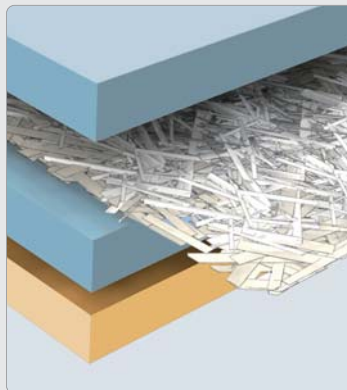
#### PET



#### Features & Benefits

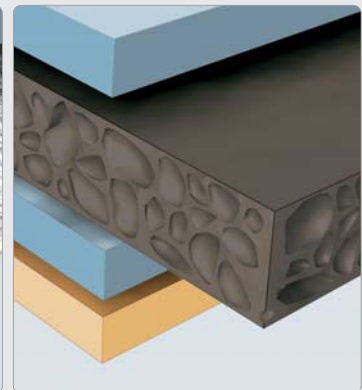
- Excellent dimensional stability and tear resistance
- Available in various thicknesses from 4-50 µm
- Available in transparent, white, black and solid black color

#### Non-Woven



- Highly conformable and shock-absorbing
- Good dimensional stability
- Translucent

#### PE Foam

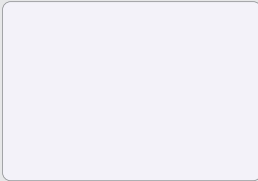
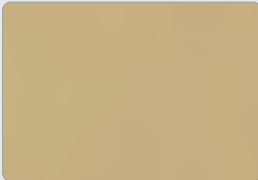

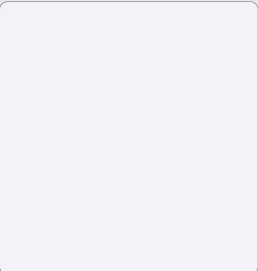


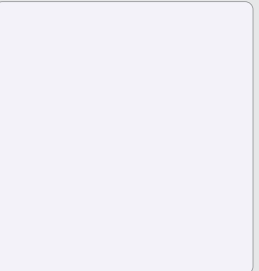
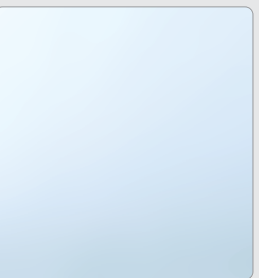


- Excellent filling of larger gaps
- Very good sealing properties
- High shock and tension absorption
- Excellent leveraging of manufacturing tolerances
- PET film reinforcement possible
- Available in low thicknesses to meet electronics designs
- Black color

## Adhesives

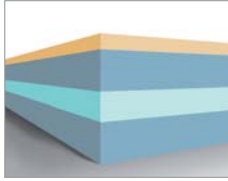
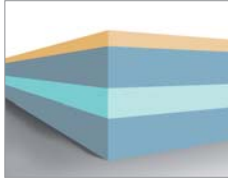
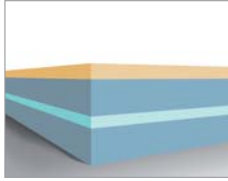
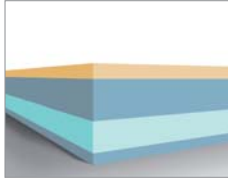
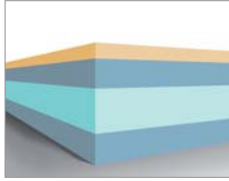





	Tackified Acrylic	Pure Acrylic	Heat Activated	Special
Features & Benefits	<ul style="list-style-type: none"> <li>Well-balanced adhesive system for general mounting and lamination applications</li> <li>Excellent aging resistance</li> </ul>	<ul style="list-style-type: none"> <li>High temperature resistance</li> <li>Excellent shear resistance</li> <li>High UV resistance</li> <li>Very low VOC and corrosive ion content</li> <li>Available versions: Standard and optically clear</li> </ul>	<p>Heat activated adhesive systems for superior bonding strength</p> <p>Available versions:</p> <ul style="list-style-type: none"> <li>Standard reactive adhesive: High humidity and aging resistance</li> <li>Thermoplastic adhesive (non-curing): Low activation temperature</li> <li>Special reactive adhesive: High shock resistance</li> <li>ACF adhesive: Anisotropic conductive</li> </ul>	<p>Available versions:</p> <ul style="list-style-type: none"> <li>High shock and push-out resistant adhesive</li> <li>Repulsion resistant adhesive</li> <li>Water vapor barrier adhesive</li> <li>Silicone surface adhesive</li> </ul>

## Liners


	Glassine paper	PE-coated paper	MOPP	PET
	  	 		 
Features & Benefits	<ul style="list-style-type: none"> <li>Paper liner with a thickness of 70 µm</li> <li>Economical solution</li> <li>Available in white, brown and white with tesa logo</li> </ul>	<ul style="list-style-type: none"> <li>PE-coated paper liner with a thickness of 120 µm</li> <li>Excellent humidity resistance</li> <li>Available in white and white with tesa logo</li> </ul>	<ul style="list-style-type: none"> <li>Filmic (PP) liner with a thickness of 80 µm</li> <li>Dust-free convertability</li> <li>Available in red (translucent)</li> </ul>	<ul style="list-style-type: none"> <li>Filmic (PET) liner</li> <li>Available in various thicknesses from 12-75 µm</li> <li>Double liner versions on request</li> <li>Available in white and transparent</li> </ul>

# tesa® Electronics Product Matrix

## PET tapes

Product group description	Standard		Extended solutions		
	PET family	General mounting	Conformable	Differential	Easy handling
					
<p><b>Solutions for standard mounting and lamination applications</b></p> <ul style="list-style-type: none"> <li>Tackified acrylic adhesive</li> <li>PET backing in transparent and black</li> </ul>	<p><b>Solutions for general mounting and lamination applications</b></p> <ul style="list-style-type: none"> <li>Tackified acrylic adhesive</li> <li>PET backing in transparent and black</li> </ul>	<p><b>Solutions for increased adhesion level at constant thickness</b></p> <ul style="list-style-type: none"> <li>Tackified acrylic adhesive</li> <li>Ultra thin and conformable PET backing</li> </ul>	<p><b>Solutions for optimized bonding performance on different substrates</b></p> <ul style="list-style-type: none"> <li>Tackified acrylic adhesive with different coating weights on either side of the tape</li> <li>PET backing</li> </ul>	<p><b>Solutions for improved handling of die-cuts</b></p> <ul style="list-style-type: none"> <li>Tackified acrylic adhesive</li> <li>Thick and stiff PET backing in transparent and black</li> </ul>	
Thickness cluster [µm]	10		68558		
	20		68559		
	30	4983 <sup>2)</sup> / 51983 <sup>1) 2)</sup>	68540* / 68740 <sup>1) *</sup>	68550	
	40				
	50	4972 <sup>2)</sup> / 51972 <sup>1) 2)</sup>	68542 / 68742 <sup>1)</sup>	68552	68582
	60				
	70				
	80	4980 <sup>2)</sup> / 51980 <sup>1) 2)</sup>	68545* / 68745 <sup>1) *</sup>		68585 / 68785 <sup>1)</sup>
	90				68575
	100	4982 <sup>2)</sup> / 51982 <sup>1) 2)</sup>	68547 / 68747 <sup>1)</sup>		
	110				
	120	4928 <sup>2)</sup> / 51928 <sup>1) 2)</sup>	68548 / 68748 <sup>1) *</sup>		
	130				
	140	4942			
	150				61320 / 61330 <sup>1)</sup>
	160	4967 <sup>2)</sup> / 51967 <sup>1) 2)</sup>			
	170				
	180				
	190				
	200	4965 <sup>2)</sup> / 51965 <sup>1) 2)</sup>			4975 / 51975 <sup>1)</sup>
220					
250				4926 / 51926 <sup>1)</sup>	
300					
400					
500					
Application examples					
	<ul style="list-style-type: none"> <li>Foam lamination</li> <li>Lens mounting</li> </ul>	<ul style="list-style-type: none"> <li>General mounting and lamination</li> </ul>	<ul style="list-style-type: none"> <li>Demanding mounting applications where an increased adhesion performance is necessary</li> <li>Demanding mounting applications with curved or uneven substrates</li> </ul>	<ul style="list-style-type: none"> <li>Speaker mesh mounting</li> <li>Applications with removability requirements</li> </ul>	<ul style="list-style-type: none"> <li>Narrow lens mounting die-cuts</li> <li>Manual application of long and narrow foam &amp; tape laminates (no elongation!)</li> </ul>

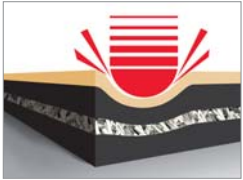
<sup>1)</sup> black version  
\* available in Q2 2011

 <sup>2)</sup> UL file MH18055 <sup>4)</sup> UL file E309290  
<sup>3)</sup> UL file MH25809 <sup>5)</sup> UL file E203787



## Non-woven mounting tapes

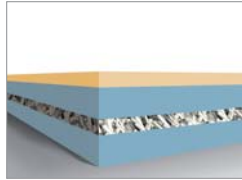
### Black



Solutions for improved shock resistance

- Black tackified acrylic adhesive
- Translucent non-woven backing

### Translucent

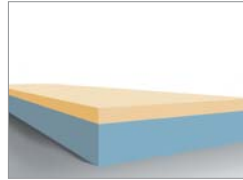


Solutions for mounting and laminating

- Tackified acrylic adhesive
- Translucent non-woven backing

## Transfer tapes

### High temperature resistant

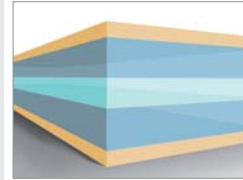


Solutions for high performance laminating

- Pure acrylic adhesive

## Light management tapes

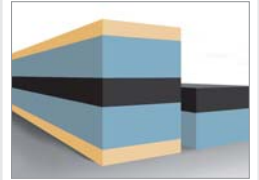
### Optically clear



Solutions for optically clear mounting

- Optically clear pure acrylic adhesive
- Production in clean room
- PET double-liner system
- Balanced processability (lamination and handling)

### Light shading and blocking



Solutions for light shading and blocking

- Acrylic adhesives (transparent or colored)
- Single-sided and double-sided solutions

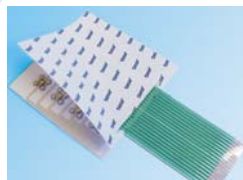
10				
20				7415 <sup>1)</sup> * (s/s)
30			69101 / 69301*	7430 <sup>1)</sup> * (s/s) / 7930 <sup>1)</sup> *
40				
50		8853 / 8857*	68105 <sup>2),4)</sup>	69102 / 69302*
60				7250 <sup>1)</sup> (s/s) / 7950 <sup>1)</sup> *
70				7860 <sup>1)</sup> / 7160 <sup>1)5)</sup> (s/s)
80				69303*
90				50574 <sup>1)9)</sup> (s/s) / 50584 <sup>1)9)</sup> (s/s) / 7980 <sup>1)</sup> *
100	51410 <sup>1)</sup>	8854 / 68644 <sup>2)</sup> / 68614		69304*
110				7800 <sup>1)</sup> / 7100 <sup>1)5)</sup> (s/s)
120		68645 <sup>2)</sup>		69305*
130		51513		
140	51414 <sup>1)</sup>	68646 <sup>3)</sup>		
150		60983		
160	51416 <sup>1)</sup>	4940 <sup>3)</sup>		
170				
180				69907
190				
200				
220				
250				53822 <sup>1)</sup>
300				
400				
500				



- Lens mounting in mobile phones
- Applications where black color of die-cut is requested for improved processability



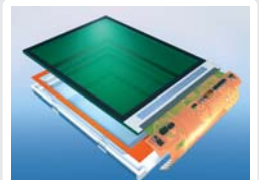
- Mylar lamination
- Mounting rubber parts
- Mounting logos
- FPC SMT mounting application before reflow (8857)



- Suitable for demanding lamination applications



- Mounting transparent films and glasses in displays and lenses
- Touchpanel mounting



- Mounting LCD panel and backlight unit
- Light blocking in mobile phones

### HAF tapes

#### Standard reactive



All-round solutions with extremely high bonding strength for long-term security

- Reactive adhesive

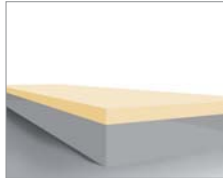
#### Special reactive



Solutions offering special shock resistance, even at low temperatures

- Reactive adhesive

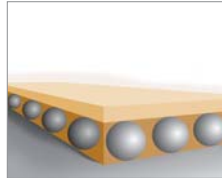
#### Thermoplastic



Solutions for temperature sensitive substrates

- Thermoplastic adhesive
- 8466, 8468 and 8469 with non-woven backing

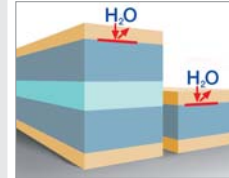
#### ACF



Solutions for anisotropic conductive mounting

- ACF reactive adhesive: 8412
- ACF thermoplastic adhesive: 8414

### Barrier tapes



Solutions for encapsulation of sensitive substrates

- Water vapor barrier adhesive
- Non-reactive with sensitive and active materials
- Highly transparent

Product group description

Thickness cluster [µm]

Application examples

8471<sup>4)</sup>

8472<sup>4)</sup>

8474<sup>4)</sup>

8475<sup>4)</sup>

8478<sup>4)</sup>

8454

8451

8462

8466

8467 / 8468

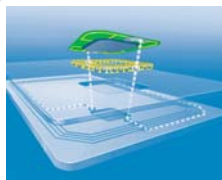
8469

8412

8414



- Bonding decorative or reinforcing metal components
- Bonding large areas
- Bonding metal logos to housing



- Shielding applications
- Dual Interface Cards - Connection between antenna and chip
- Highly transparent



- Encapsulation of organic based layers
- Compatibility with sensitive materials; direct adhesion possible

61512 / 61562

61505

10

20

30

40

50

60

70

80

90

100

110

120

130

140

150

160

170

180

190

200

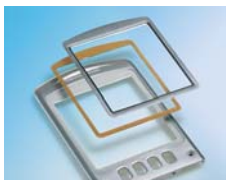
220

250

300

400

500



- Bonding window frame and front cover of mobile phone housing
- Fastening battery slots in digital cameras
- Constructive bonding inside electronic devices



- Bonding decorative metal components
- Bonding window frame and front cover
- Constructive bonding inside electronic devices

## Detailed Information

For additional information, please refer to the following brochures:

### Application Folder:

- tesa® Solutions for Mobile Phones
- tesa® Solutions for Digital Cameras
- tesa® Solutions for LCD Modules
- tesa® Solutions for Notebooks

### Product Folder:

- tesa® HAF Solutions for handheld devices in consumer electronics
- tesa® adhesive solutions for the FPC industry
- tesa® Double-sided Adhesive Tapes: Extended Solutions



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