

## tesa® double-sided foam tapes for industry use The right tape for every application

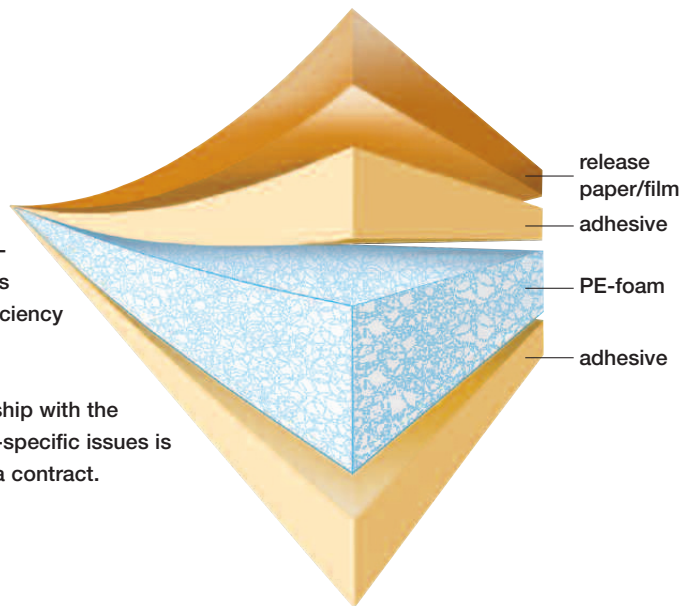
tesa® double-sided foam Tapes  
ASSORTMENT FOLDER



## tesa® foam tapes

With more than 100 years experience in the production of self-adhesive products, tesa is one of the leading producers world-wide. Their high quality double-sided tapes are ideally designed to aid process optimisation and efficiency increases.

tesa places great importance on having a close partnership with the industry. On-site advice relating to customer or process-specific issues is as much a part of our service as the fast processing of a contract.

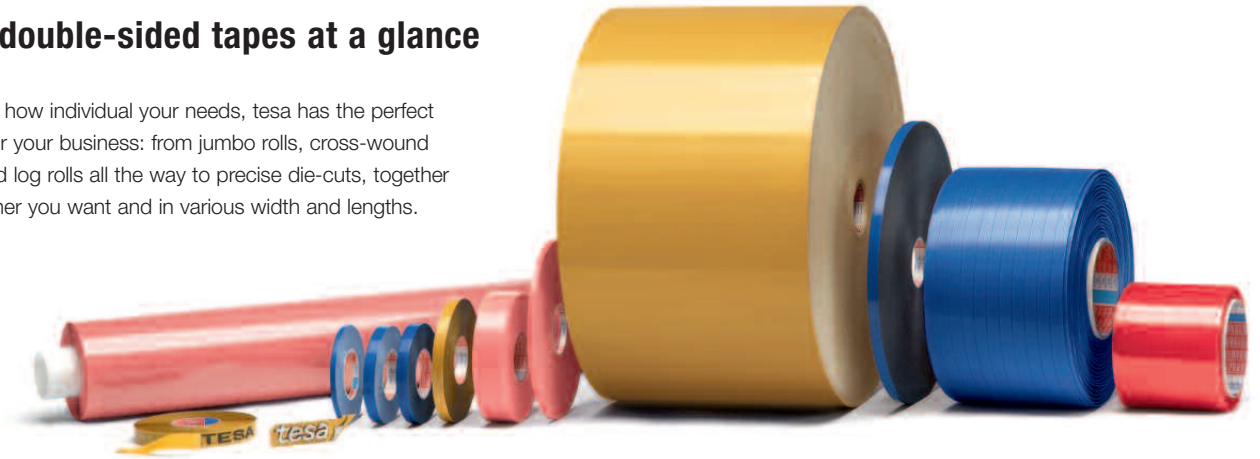


### Advantages at a glance

Product Features		Features and Benefits	
<ul style="list-style-type: none"> <li>■ Compensation for irregular surfaces</li> </ul>		<ul style="list-style-type: none"> <li>■ High immediate adhesion on structured surfaces</li> </ul>	
<ul style="list-style-type: none"> <li>■ Gap filling</li> </ul>		<ul style="list-style-type: none"> <li>■ Safe bonding of parts that come with high tolerances or different quality</li> <li>■ Mount large size parts</li> </ul>	
<ul style="list-style-type: none"> <li>■ Shock absorption</li> </ul>		<ul style="list-style-type: none"> <li>■ Absorbs shock load down to -40°C</li> <li>■ Protects fragile materials e.g. mirrors from breaking</li> </ul>	
<ul style="list-style-type: none"> <li>■ Compensation for temperature-related expansion/contraction</li> </ul>		<ul style="list-style-type: none"> <li>■ Bond different material types reliably</li> <li>■ Allows a high freedom in the material choice</li> </ul>	
<ul style="list-style-type: none"> <li>■ Dust and moisture seal</li> </ul>		<ul style="list-style-type: none"> <li>■ Seals against water immersion</li> <li>■ Protects against dust</li> <li>■ Highly resistant against water</li> </ul>	
<ul style="list-style-type: none"> <li>■ Powerful immediate bond even with low application pressure</li> </ul>		<ul style="list-style-type: none"> <li>■ Achieve good bonding results even if a high pressure can not be applied</li> <li>■ Increase process speed</li> </ul>	

## tesa® double-sided tapes at a glance

No matter how individual your needs, tesa has the perfect solution for your business: from jumbo rolls, cross-wound spools and log rolls all the way to precise die-cuts, together with the liner you want and in various width and lengths.



### Technical Information

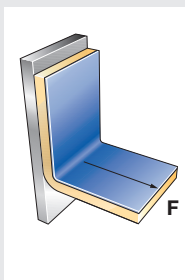
Product	Substrate	Thickness [without liner]	Foam strength	Adhesive	Colour	Steel	ABS	Adhesion [N] PC
tesa® 62939	PE-Foam	3000 µm	low	tackified acrylic	white	5,0 / 5,0	5,0 / 5,0	5,0 / 5,0
tesa® 62936	PE-Foam	1600 µm	medium	tackified acrylic	black	17,5 / ≥ 19,0*	17,5 / ≥ 19,0*	19,0* / ≥ 19,0*
tesa® 62856	PE-Foam	1200 µm	medium	pure acrylic	black	**	**	**
tesa® 4952	PE-Foam	1150 µm	medium	tackified acrylic	white	> 5,5* / > 8,0*	> 5,0* / > 8,0*	> 5,0* / > 8,0*
tesa® 4957	PE-Foam	1100 µm	low	tackified acrylic	white, black	> 4,0* / > 4,0*	> 4,0* / > 4,0*	> 4,0* / > 4,0*
tesa® 64958	PE-Foam	1050 µm	low	synthetic rubber	white	> 4,0* / > 4,0*	> 4,0* / > 4,0*	> 4,0* / > 4,0*
tesa® 62855	PE/EVA-Foam	900 µm	high	pure acrylic	black	9,0 / 23,0	5,5 / 10,0	/
tesa® 62854	PE-Foam	800 µm	medium	pure acrylic	black	11,0 / > 17,0*	9,0 / > 17,0*	/
tesa® 62934	PE-Foam	800 µm	medium	tackified acrylic	white, black	17,0 / ≥ 17,0*	17,0 / ≥ 17,0*	15,0 / ≥ 17,0*
tesa® 62852	PE/EVA-Foam	510 µm	high	pure acrylic	black	9,5 / 20,0	6,0 / 13,0	/
tesa® 62932	PE/EVA-Foam	500 µm	high	tackified acrylic	white, black	13,0 / ≥ 17,0*	14,0 / ≥ 17,0*	9,0 / ≥ 17,0*
tesa® 62948	PE-Foam PET reinforced	400 µm	high	tackified acrylic	black	5,8 / 13,1	5,8 / 9,0	6,9 / 10,8
tesa® 62946	PE-Foam PET reinforced	300 µm	high	tackified acrylic	black	6,4 / 13,2	6,7 / 9,4	7,6 / 12,2

## tesa test methods

### Adhesive strength

Peel adhesion is an important tape parameter and describes how well a tape adheres to a substrate.

Adhesive strength increases when pressure is applied to the bond. It is not only affected by amount and duration of this pressure, but also by the properties of the substrate it is being mounted onto.



### Shear Strength

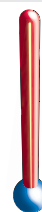
Shear strength is mainly determined by the inner strength of the adhesive, and describes the holding power of the tape.

High shear strength is relevant for applications in which the load works parallel to the bonding surface.



### Temperature resistance

This value represents the maximum operating temperature of a tape. We differentiate between short term (up to 15 minutes) and long term temperature resistance (more than 3 months). Our test method gives the temperature up to which the tape can hold a defined weight successfully.



110° C – 200° C  
(short-term resistance)

50° C – 70/80° C  
(long-term resistance)



/cm – immediately/after 14 days]

PET	PVC	PP	PE	Shear strength on steel [RT/40° C/70° C]	Temperature resistance [short-term/long-term]	Liner
5,0 / 5,0	6,8* / 7,0*	2,0 / 2,9	1,8 / 2,2	o / o / o	80° C / 80° C	Siliconised paper
15,0 / ≥ 19,0*	19,0 / ≥ 19,0*	2,6 / 7,0	1,8 / 3,2	+ / + / o	80° C / 80° C	Siliconised paper PE-coated paper PP-film
**	**	**	**	++ / ++ / ++	100° C / 90° C	PP-film
> 5,0* / > 7,0*	> 5,0* / > 8,0*	2,8 / 5,5	2,7 / 2,8	+ / + / o	80° C / 80° C	Siliconised paper PP-film
> 4,0* / > 4,0*	> 4,0* / > 4,0*	1,8 / 3,3	1,7 / 2,2	+ / + / +	80° C / 80° C	Siliconised paper PE-coated paper PE-Film
> 4,0* / > 4,0*	> 4,0* / > 4,0*	> 4,0* / > 4,0*	> 4,0* / > 4,0*	++ / o / -	60° C / 40° C	Siliconised paper
/	/	/	1,5 / 2,0	++ / ++ / ++	100° C / 90° C	Siliconised paper
/	/	/	1,5 / 2,0	++ / ++ / ++	100° C / 90° C	Siliconised paper
12,5 / ≥ 17,0*	17,0 / ≥ 17,0*	2,8 / 5,5	2,7 / 2,8	+ / + / +	80° C / 80° C	Siliconised paper PE-coated paper PP-film
/	/	/	1,5 / 1,5	++ / ++ / ++	100° C / 90° C	Siliconised paper
12,5 / ≥ 17,0*	14,5 / ≥ 17,0*	1,8 / 3,3	1,7 / 3,0	+ / + / +	80° C / 80° C	Siliconised paper PE-coated paper PP-film
4,9 / 7,3	6,0 / 13,2	/	2,3 / 2,3	+ / + / +	80° C / 70° C	Siliconised paper
5,3 / 7,7	6,7 / 13,7	/	2,3 / 2,7	+ / + / +	80° C / 70° C	Siliconised paper

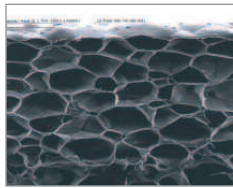
++ very good + good o medium - low

\* foam splits during measurement

\*\* will be launched May 2009 (please refer to the product information sheet)

## The Foam System

### PE-foam and major features

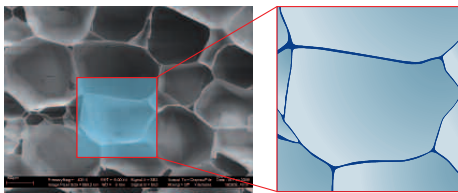


The backing material of tesa® double-sided foam tapes is composed of closed-cell PE-foam. Through the targeted variation of the polymer, thickness and density of the foam, each tape achieves the optimum properties for its specific tasks.

1. Mechanical resistance
2. Service temperature between -40° C and +70° C
3. UV resistance (no yellowing or degrading)
4. Shock absorbing even at low temperatures of -40° C
5. High di-electric strength
6. Water resistant & Vapour barrier

### tesa® double-sided foam tape backing categories

REM pictures

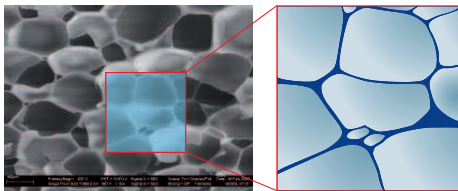


#### Low strength

Big cells with a thin membrane

**tesa® 62939, tesa® 4957, tesa® 64958**

- Sealing
- Gap filling

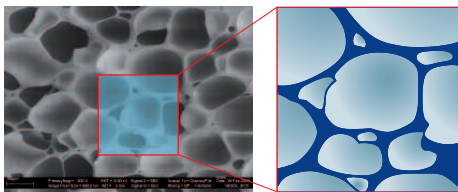


#### Medium strength

Medium sized cells and membranes

**tesa® 62936, tesa® 4952, tesa® 62854, tesa® 62934, tesa® 62856**

- Optimally balanced strength & conformibility



#### High strength

Small cells with a thick membrane

**tesa® 62855, tesa® 62852, tesa® 62932, tesa® 62948, tesa® 62946**

- Highest mechanical strength

## The Adhesive Systems

### Pure Acrylic

■ Polymerisation, compounding and coating by tesa  
**tesa® pure acrylic adhesive is especially suitable for outdoor applications and applications at elevated temperatures.**

#### Attributes:

- + Good adhesive strength on polar and pre-treated non-polar surfaces (e.g. PET, PC, glass, metal)
- + Very good at elevated temperature
- + Ageing resistance
- + Resistance against environmental conditions (e.g. UV, humidity)

### Tackified Acrylic

■ Polymerisation, compounding and coating by tesa  
**tesa® tackified acrylic is a versatile adhesive with a well balanced performance on a wide variety of surfaces for permanent applications.**

#### Attributes:

- + Very good adhesive strength on polar surfaces, good on non-polar surfaces.
- + High initial adhesion power
- + Ageing resistance
- + Resistance against environmental conditions (e.g. UV, humidity)

### Synthetic Rubber





■ Compounding and coating by tesa  
**tesa® SiS adhesive is suitable for a variety of surfaces but offers only limited aging and temperature resistance**

#### Attributes:

- + Very good adhesive strength on non-polar surfaces (e.g. PP, PE).
- + Very high initial adhesion power

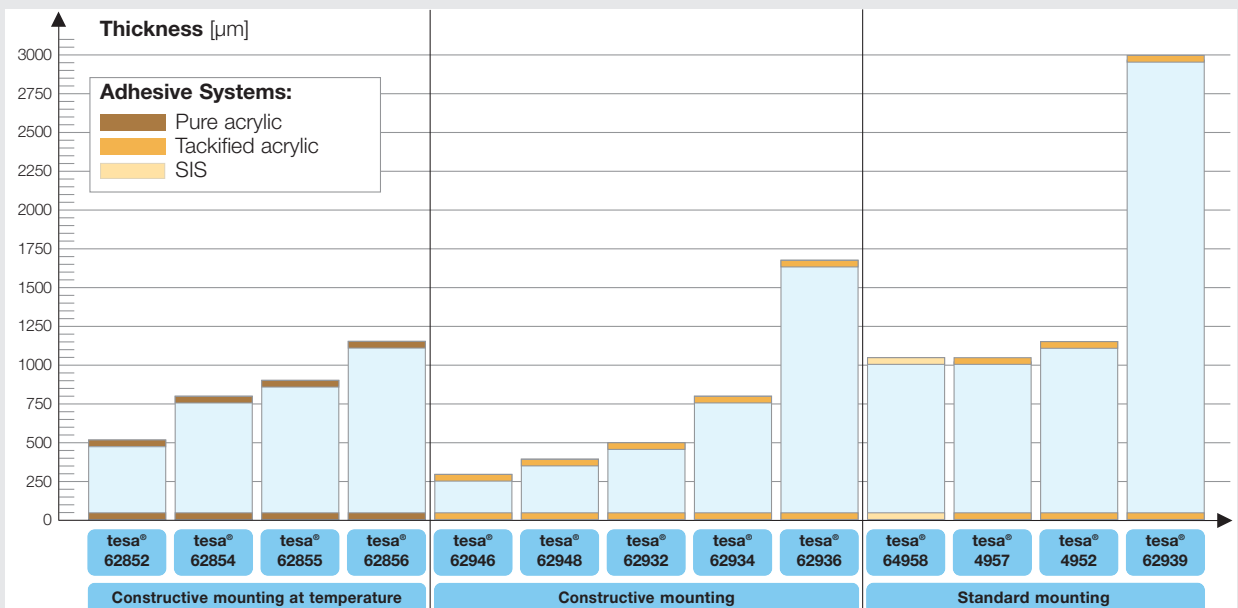


### The Release Liners

Product Features/Advantages	Product Variation	Colour	Thickness	Weight	Breaking Force
<b>Siliconised paper</b> <ul style="list-style-type: none"> <li>+ Price-performance ratio</li> <li>+ Stable under pressure due to hard paper core</li> <li>- Limited humidity resistance</li> </ul>	PV0	 brown	70 µm	80 g/m <sup>2</sup>	> 63 N/cm
<b>PE – coated paper</b> <ul style="list-style-type: none"> <li>+ Excellent humidity resistance</li> <li>+ Sharp edges without fibre residues</li> </ul>	PV14	 white	120 µm	120 g/m <sup>2</sup>	> 73 N/cm
<b>MOPP – release film</b> <ul style="list-style-type: none"> <li>+ High tear-resistance</li> <li>+ Perfect for die cutting process</li> <li>+ Safe use in automated processes</li> </ul>	PV6	 red, translucent	80 µm	72 g/m <sup>2</sup>	> 233 N/cm
	PV10		120 µm	108 g/m <sup>2</sup>	> 233 N/cm
<b>PE (polyethylene) – release film</b> <ul style="list-style-type: none"> <li>+ Flexible and soft for easy unwinding and application on curved surfaces</li> <li>+ No tearing when the film is stripped from the tape and no fraying during the sawing process</li> </ul>	PV15	 dark blue	100 µm	94 g/m <sup>2</sup>	> 16 N/cm

### Overview

Foam	Thickness	Adhesive Systems		
		Pure Acrylic	Tackified Acrylic	SIS
High strength	500 µm 900 µm	62852 62855	62932	
Mid strength	800 µm 1200 µm 1600 µm	62854 62856	62934 4952 62936	
Low strength	1100 µm 3000 µm		4957 62939	64958
Special / PET reinforced	300 µm 400 µm		62946 62948	

**Thickness [µm]**

**Adhesive Systems:**

- Pure acrylic
- Tackified acrylic
- SIS

Product	Thickness [µm]	Category
tesa® 62852	500	Constructive mounting at temperature
tesa® 62854	800	Constructive mounting at temperature
tesa® 62855	900	Constructive mounting at temperature
tesa® 62856	1200	Constructive mounting at temperature
tesa® 62946	300	Constructive mounting
tesa® 62948	400	Constructive mounting
tesa® 62932	70	Constructive mounting
tesa® 62934	120	Constructive mounting
tesa® 62936	160	Constructive mounting
tesa® 64958	1100	Standard mounting
tesa® 4957	1100	Standard mounting
tesa® 4952	1200	Standard mounting
tesa® 62939	3000	Standard mounting

## Product Profile and exemplary uses

Constructive mounting at temperature		<b>tesa® 62856</b> is a thick version for gap filling and thickness compensation. It is universally usable for exterior moldings such as door sill protectors.
		<b>tesa® 62855</b> has a high density foam provides excellent cohesive strength. It is applicable in exterior application such as small trims or candybar emblems.
		<b>tesa® 62854</b> has a conformable backing which increases the adhesive wetting to the surface. It is suitable for various demanding applications such as solar panel edging.
		<b>tesa® 62852</b> is a thin version and holds single letters or small nameplates in place with less visible gap. It offers excellent die-cutting properties.
Constructive mounting		<b>tesa® 62936</b> features improved gap filling properties at good foam strength. This translates into a reliable, permanent bonding performance with increasing component tolerances. In use for solar module junction box mounting. Adhesion performance after heavy environmental impact proven by TÜV Germany. * TÜV Rheinland, report no. 21209595
		<b>tesa® 62934</b> features a strong but very conformable foam backing with a versatile tackified adhesive. It gives a high bonding strength even on difficult and structured substrates and can be used to bond injection moulded components in electronic industry.
		<b>tesa® 62932</b> offers a high bonding strength together with good immediate adhesion on numerous substrates. Due to thin design tesa® 62932 is used for decorative trims or handle rails in furniture industry.
		<b>tesa® 62948</b> Is a very thin double-sided tape with a PET reinforced PE foam and a tackified acrylic adhesive. Due to the PET reinforcement, the product is perfectly suitable for converting and die cutting processes. A good example is mounting of small components.
		<b>tesa® 62946</b> Is a very thin double-sided tape with a PET reinforced PE foam and a tackified acrylic adhesive. Due to the PET reinforcement the product has a good handling in lamination processes. An application example is the mounting of smaller signs under challenging conditions such as rough surfaces or vibrations during the lifecycle.
Standard mounting		<b>tesa® 62939</b> is a 3mm thick foam tape with tackified acrylic adhesive for permanent outdoor use. The product design allows to fill and seal large size gaps and provide high adhesion on structured surfaces. It can be used to additionally bond glazing units to the window sash.
		<b>tesa® 4952</b> has proven its reliable performance in mirror mounting for over 20 years. The acrylic adhesive combines a durable holding power with good adhesion on numerous substrates. tesa® 4952 is certified for mirror mounting by German LGA* institute. * Landesgewerbeanstalt Bayern, report no. 3291189
		<b>tesa® 4957</b> is typically used for mounting trims made of PVC, wood or aluminum because of its gap filling PE-foam backing and tackified acrylic adhesive. German ift* institute has approved tesa® 4957 for permanent outdoor window bar mounting. * Institut für Fenstertechnik Rosenheim, report no. 50930742/1
		<b>tesa® 64958</b> features a light weight foam with aggressive synthetic rubber adhesive. Use this tape for applications that require high immediate adhesion even on difficult substrates but can do with reduced temperature, ageing and UV resistance. Typically used in corrugated board display assembly.