tesa® Double-sided Tapes for Industrial Business. The Right Solution for Every Application.

tesa® double-sided tapes

ASSORTMENT FOLDER

Contents

tesa SE is one of the world's leading manufacturers of self-adhesive product and system solutions for industry, trade, and consumers. The company's 125 years of experience in coating technology and its development of adhesives and innovative product solutions have taken tesa, headquartered in Hamburg, to the top of the world market in many fields of application.

At present, 3,700 employees across 51 subsidiaries ensure that tesa is represented in all the important industrial markets around the world. The company's employees at its nine production sites worldwide ensure the necessary proximity to customers. Research labs in Germany, the United States, China, and Singapore ensure continual development of innovative product solutions.

The company achieves more than three-quarters of its overall revenue with special system solutions for industrial clients, and ensures, in many industries, that costs are cut, processes optimized, and end products thereby improved. As a partner to industry, tesa works together with its clients to analyze their production processes in order to develop tailored solutions for increasing efficiency or optimizing end products.

tesa® Double-sided Adhesive Systems and Release Liner Categories

tesa® adhesive systems

Pure acrylic

tesa® pure acrylic adhesive is especially suitable for outdoor applications and applications at elevated temperatures.

■ Polymerisation, compounding and coating by tesa

Attributes:
+ Good adhesive strength on polar and pre-treated non-polar surfaces
+ Very good at elevated temperature
+ Aging resistance
+ Resistance against environmental conditions (e.g. UV, humidity)

Tackified acrylic

tesa® tackified acrylic is a versatile adhesive with a well balanced performance on a wide variety of surfaces for permanent applications.

■ Polymerisation, compounding and coating by tesa

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

Synthetic rubber (SiS)

tesa® SiS adhesive is suitable for a variety of surfaces but offers a limited aging and temperature resistance.

■ Compounding and coating by tesa

Attributes:
+ High immediate adhesive bonding strength
+ Good shear resistance
+ Very good bonding on polar and non-polar surfaces

Natural rubber

tesa® natural rubber adhesive is extremely tacky for the use on rough surfaces.

■ Compounding and coating by tesa

Attributes:
+ High immediate adhesive bonding strength
+ Very good bonding on polar and non-polar surfaces
+ Preferred for the use of indoor applications

tesa® release liners

Product features/advantages	Color	Thickness	Weight	Breaking force
Siliconized paper + Low electric discharge + Easy hand tearable + Price-performance ratio + Stable under pressure due to hard paper core - Limited humidity resistance	brown	71 µm	82 g/m²	> 63 N/cm
PE – (Polyethylene) coated paper + Good tensile strength + Excellent die-cutting properties + Excellent humidity resistance	white	122 µm	120 g/m²	> 73 N/cm
PP (Polypropylene) release film + High humidity resistance + Dust free convertability + High tear-resistance + Perfect for die cutting process + Safe use in automated processes - Low elongation	red	80 µm	72 g/m²	> 180 N/cm
		120 µm	108 g/m²	> 180 N/cm
PET (Polyethylene Terephthalate) release film + Excellent tear strength + Good thickness tolerance + Dust free processing	transparent	50 µm	70 g/m²	> 70 N/cm

* Results obtained under laboratory conditions

tesa® Double-sided PET Tapes for Industrial Applications with Demand for High-speed, Full

Double-sided filmic tapes

Product	Product description	Product application	Backing
tesa® 68327	- Thick transparent double-sided tape - High shear strength and dimensionable stability also under temperature load - Outstanding plasticizers resistivity - Little outgassing - Excellent aging and UV resistance - Reinforcement of thin layers - UL recognized: UL 969, UL 746C	- Laminating of multi-layer constructions - Spacer function in electronic components - Product applications with high temperature load and the need for non-yellowing	PET
tesa® 4926	- Thick double-sided tape with excellent bonding power on critical surfaces - Thick coating weight supports in cushioning or in gap filling applications - Very good aging resistance	- Mounting of components in the consumer electronics industry	PET
tesa® 4965	- Exceptional bonding performance on critical surfaces and rough materials - Excellent holding power at elevated temperatures - High initial adhesion power and humidity resistance - 4965 is also available in black and white color - 4965 is available in cross-wound spool with/without fingerlift	- Mounting of ABS parts in the automotive industry - Mounting of components in the consumer electromic industry - Finishing for rubber and EPDM-profiles - Bonding of trims in the furniture industry - Mounting of point of sale displays and signs - Sealing of insulation jackets and splicing of alu plates	PET
tesa® 68320	- Thick transparent double-sided tape - High shear strength also under temperature load - Outstanding plasticizers resistivity - Little outgassing - Excellent aging and UV resistance - Reinforcement of thin layers - UL recognized: UL 969, UL 746C	- Laminating of multi-layer constructions - Spacer function in electronic components - Product applications with high temperature load and the need for non-yellowing	PET
tesa® 4975	- Double sided tape with thick backing - Thick backing enhances bonding power, handling & processing performance - High temperature resistance - 4975 is available in cross-wound spool - 4975 is available in black color	- Laminating trims and profiles in Point of Sale displays - Mounting of components in the consumer electronics industry	PET
tesa® 4967	- Excellent bonding results on smooth and rough surfaces - Well balanced ratio of adhesive power and shear strength - Outstanding humidity and temperature resistance - Very good aging resistance - 4967 is available in cross-wound spool with/without fingerlift	- Adhesion of signs, scales and blinds made of synthetics or metal - Splicing of synthetic and metal films - Mounting of components in the electronics industry - Laminating of trims and profiles made of wood or plastic	PET
tesa® 4928	- Very good bonding results on polar surfaces (ABS, PC) - Adhesion on rough surfaces - Balanced ratio between adhesive power and shear strength	- Adhesion of signs, scales and blinds made of synthetics or metal - Splicing of synthetic- and metal films - Mounting of components in the consumer electronics industry - Laminating of wooden or plastic trims and profiles	PET
tesa® 4980	- Good bonding strength to most common, smooth, even substrates - Superior converting performance due to strong PET backing - Initial repositioning in the assembly process due to reduced immediate contact adhesion	- Mounting of components in electronic devices - Mounting of nameplates, badges and light signs - Mounting of decorative profiles and mouldings in the furniture industry	PET
tesa® 4972	- Very low thickness of only 48µm - High adhesion level relative to low thickness - Excellent resistance to demanding environmental conditions - Excellent handling performance in converting processes	- Mounting of metal or plastic badges and signs - Fixing of reflection foil to LCD frame - Splicing of thin plastic films	PET
tesa® 4983	- Lowest possible thickness of 30µm - Good adhesion level relative to low thickness to smooth surfaces - Excellent resistance to demanding environmental conditions - Excellent handling performance in converting processes	- Lamination of cushioning materials to LCDs - Fixing of reflection foil to LCD frame - Splicing of thin plastic films	PET
tesa® 51968	- Outstanding adhesion power and shear strength - Very good humidity resistance - High aging resistance	- Suitable for permanent bonding on rough surafces - Lamination of decorative trims and profiles and synthetic frames - Mounting of components in consumer electronics - Bonding of automotive interior components - Nameplate lamination in appliance industry	PP

PC = Polycarbonate, PET = Polyethylene Terephthalate, PVC = Polyvinyl Chloride, PP = Polypropylene, PE = Polyethylene

Continuous Processes as well as Precise Die-cut Ability

Thickness without liner	Adhesive	Color	Peel adhesion in N/cm - immediate/after 14 days Steel	ABS	PC	PET	PVC	PP	PE	Shear resistance [23°C]	Temperature resistance short-/long-term
275 µm	pure acrylic	transparent	4,0/8,0	3,1/7,4	2,0/9,9	1,0/4,0	2,2/9,4	0,4/0,6	0,4/0,5	++	200°C/150°C
250 µm	tackified acrylic	transparent	12,3/16,2	11,8/13,6	14,6/17,0	11,0/13,3	13,4/16,5	3,0/7,0	5,1/6,5	+	200°C/100°C
205 µm	tackified acrylic	transparent	11,5/14,0	10,8/11,9	12,2/13,4	9,8/11,9	9,6/12,8	6,0/8,8	5,6/6,6	+	200°C/100°C
200 µm	pure acrylic	transparent	5,0/10,0	4,6/8,8	5,0/10,8	2,6/5,0	5,2/10,1	0,5/1,0	0,4/0,6	++	200°C/150°C
195 µm	tackified acrylic	transparent	13,2/18,3	11,9/15,5	15,7/17,4	9,1/11,3	12,4/16,7	4,8/8,0	5,5/6,7	+	200°C/100°C
160 µm	tackified acrylic	transparent	11,3/13,4	9,8/10,8	11,7/13,1	9,3/10,5	8,9/11,9	5,3/7,0	5,2/5,7	+	200°C/100°C
125 µm	tackified acrylic	transparent	9,6/12,0	8,2/9,7	10,3/11,5	7,4/8,7	7,2/10,1	4,8/6,4	4,9/5,4	+	200°C/100°C
80 µm	tackified acrylic	transparent	7,7/10,5	7,1/8,9	8,1/9,6	6,2/8,0	6,2/9,6	3,4/5,2	3,7/4,1	+	200°C/100°C
48 µm	tackified acrylic	transparent	6,8/8,3	5,8/7,1	6,3/7,6	5,3/6,7	5,2/8,3	2,6/4,9	3,1/3,7	+	200°C/100°C
30 µm	tackified acrylic	transparent	5,2/7,6	4,5/5,3	5,2/6,0	4,2/4,8	3,6/6,4	2,3/3,7	2,0/3,3	+	200°C/100°C
300 µm	tackified acrylic	white	15,5/23,0	13,4/17,5	16,9/23,5	11,5/15,2	12,6/21,9	4,6/7,8	5,8/7,7	++	140°C/80°C

++ very good + good o medium - low

Double-sided filmic tapes

Product	Product description	Product application	Backing
tesa® 51968	- Outstanding adhesion power and shear strength - Very good humidity resistance - High aging resistance	- Suitable for permanent bonding on rough surafces - Lamination of decorative trims and profiles and synthetic frames - Mounting of components in consumer electronics - Bonding of automotive interior components - Nameplate lamination in appliance industry	PP
tesa® 51970	- Exceptional bonding results on smooth and rough surfaces - Balanced ratio between adhesion power and shear strength - High aging resistance - 51970 is available in cross-wound spool with/without fingerlift	- Laminating of wood and synthetic decorative profiles - Mounting of solid decoration components, displays as well as scales and signs - Splicing of thin plates and films - Process support in the manufcaturing of automotive components	PP
tesa® 64620	- Outstanding initial bonding power - Feasible for the use on hard to bond surfaces - Suited for the adhesion on non-polar surfaces (PP, PE) - Limited aging and temperature resistance	- Mounting corrugated point of sales displays - Laminating magnets - Mounting building and furniture components - Laminating and bonding isolation material	PP
tesa® 64624	- Outstanding initial adhesion power - Suited for the adhesion on non-polar surfaces (PP, PE) - Limited aging and temperature resistance - 64624 is available in cross-wound spool	- Finishing for decoration and wrapping materials - Adhesion of metal, cloth, paper and synthetic materials - Feasible for hard to bond surfaces - Laminating of trims and profiles in furniture industry	PP
tesa® 51908	- Excellent bonding power on PE and PP - High aging resistance - Very good humidity resistance - 51908 is available in cross-wound spool with/without fingerlift	- Permanent sealing of plastic bags	PP
tesa® 64621	- Outstanding initial adhesion power - Suited for the adhesion on non-polar surfaces (PP, PE) - Limited aging and temperature resistance - 64621 is available in cross-wound spool with/without fingerlift	- Finishing for decoration and wrapping materials - Mounting of decorative trims and profiles - Adhesion of metal, cloth, paper and synthetic materials - Feasible for hard to bond surfaces	PP
tesa® 4968	- Flexible film backing material with high adhesion power - Plasticizer resistant to a large extent - Very good initial adhesion power and humidity resistance - Outstanding converting properties - 4968 is available in cross-wound spool	- Adhesion of car mirrors in plastic housings - Bonding decorative trims and profiles in the furniture industry	PVC
tesa® 4970	- Outstanding bonding performance on smooth and rough surfaces - Plasticizer resistant to a large extent - Very good aging resistance - 4970 is available in cross-wound spool with/without fingerlift	- Mounting of plastic and wood profiles and cable channels - Adhesion of heavy decoration signs and point of sales displays - Laminating of foams and felts - Splicing of synthetic, metal, paper and film materials	PVC
tesa® 4963	- Good shear strength - Good humidity resistance - Creped liner - not siliconized - 4963 is available in cross-wound spool with/without fingerlift	- Sealing of synthetic- and paper bags - Finishing for decoration and wrapping materials - Splicing of paper, synthetic and metal films - Bonding samples to promotion mails	PVC

Edge protection for storage and transport
e.g. - tesa® 64621
- tesa® 64624

Manufacturing of precise die-cuts for consumer electronics, automotive and diverse industries
e.g. - tesa® 4972
- tesa® 4983

PC = Polycarbonate, PET = Polyethylene Terephthalate, PVC = Polyvinyl Chloride, PP = Polypropylene, PE = Polyethylene

Thickness without liner	Adhesive	Color	Peel adhesion in N/cm - immediate/after 14 days							Shear resistance [23°C]	Temperature resistance short-/long-term
			Steel	ABS	PC	PET	PVC	PP	PE		
300 µm	tackified acrylic	white	15,5/23,0	13,4/17,5	16,9/23,5	11,5/15,2	12,6/21,9	4,6/7,8	5,8/7,7	++	140°C/80°C
220 µm	tackified acrylic	transparent	13,0/16,2	11,3/14,4	12,3/15,0	9,9/12,5	10,5/15,1	6,8/8,8	5,4/6,8	+	130°C/80°C
185 µm	synthetic rubber	white	11,7/19,6	9,0/16,0	10,4/24,4	9,1/14,1	10,1/21,6	8,8/11,6	5,4/8,0	+	80°C/40°C
170 µm	synthetic rubber	transparent	15,2/16,0	11,0/14,1	12,6/18,1	10,8/14,2	11,7/15,9	9,1/10,3	7,6/8,1	++	80°C/40°C
100 µm	tackified acrylic	transparent	8,7/13,7	7,9/10,7	8,5/11,3	6,0/8,5	6,8/11,5	5,1/6,2	3,5/4,3	+	150°C/80°C
90 µm	synthetic rubber	transparent	10,5/15,3	7,5/14,2	9,1/13,7	8,4/9,7	8,5/13,6	7,6/9,0	5,2/6,3	o	80°C/40°C
295 µm	tackified acrylic	white	10,5/27,0	12,1/21,5	13,8/24,6	9,6/22,4	10,6/21,7	6,5/12,7	4,9/7,5	+	70°C/60°C
240 µm	tackified acrylic	white	13,5/14,8	10,9/13,7	13,5/13,8	9,4/10,7	9,3/13,5	6,9/8,7	5,5/5,8	+	70°C/60°C
110 µm	natural rubber	transparent	5,9/6,1	5,4/6,2	6,2/6,6	5,2/5,4	5,0/5,9	4,3/4,6	3,8/4,5	++	70°C/40°C

◀ Mounting thin and precise consumer electronic components
e.g. - tesa® 4967
- tesa® 4928

◀ Lamination of trims and profiles for the building industry
e.g. - tesa® 4970
- tesa® 4965

▶ Corrugated closure with double-sided tape
e.g. - tesa® 51970
- tesa® 64621

++ very good + good o medium - low

tesa® Double-sided Non-woven Tapes Allow Flexible, Conformable Lamination of Industrial

Double-sided non-woven & paper tapes

Product	Product description	Product application	Backing
tesa® 4961	- High shear strength - High cohesive adhesive mass system - Easy and quick to be removed from non-splitting surfaces - Appropriate for the use on smooth surfaces	- Mounting of synthetic materials and components - Support in tooling up grinding wheels and grinding belts - Splicing of paper and film tracks	paper
tesa® 4962	- High initial adhesion power - Excellent bonding results on smooth and rough surfaces - Outstanding aging resistance	- Mounting of automotive interior components - Mounting and cushioning of consumer electronic components - Flying splice in paper and corrugated industry	non-woven
tesa® 51571	- High adhesive bonding strength, also on non-polar surfaces - Excellent shear strength - Bendable and flexible - Suitable for rough and structured surfaces	- Adhesion of signs and blinds - Pre-fixing of construction components - Laminating foams, film bags, shipping bags, posters and displays - Evaporator mounting in appliance	non-woven
tesa® 4987	- Good shear resistance - Good conjunction of high initial tack and ultimate adhesion level even to rough surfaces - Good resistance to environmental conditions such as light, elevated temperatures etc.	- Fixing of furniture trims, profiles and window blinds - Mounting of heating elements - Splicing of corrugated cardboard - Lamination of foam and rubber substrates	non-woven
tesa® 4959	- Conformable for backing allows to process flexible materials (e.g. foams) - Well balanced ratio of shear strength and adhesive power - Very good aging resistance	- Mounting of signs, blinds and scales - Laminating door films in automotive industry - Closure of film-, shipping and medical pouches - Splicing of flat paper and film tracks - Evaporator mounting in appliance - Support tape in leather processing	non-woven
tesa® 51570	- High initial adhesion power - Suitable for non-polar surfaces - Very supple and flexible for the processing of elastic materials	- Splicing in paper and carton industry - Closure of film- and shipping bags	non-woven
tesa® 4960	- High initial adhesion power - Very good aging, solvent and chemical resistance - High temperature resistance	- Mounting of advertising and decoration items - Laminating of pictures and posters - Splicing in paper and film production on rough surfaces	non-woven

Lamination of leather in shoe- and bag manufacturing, e.g.:
- tesa® 4959
- tesa® 51571

Splicing to support full continuous production processes in paper and corrugated industry, e.g.:
- tesa® 4962
- tesa® 4960
- tesa® 4987

PC = Polycarbonate, PET = Polyethylene Terephthalate, PVC = Polyvinyl Chloride, PP = Polypropylene, PE = Polyethylene

Substrates

Thickness without liner	Adhesive	Color	Peel adhesion in N/cm - immediate/after 14 days							Shear resistance [23°C]	Temperature resistance short-/long-term
			Steel	ABS	PC	PET	PVC	PP	PE		
205 µm	natural rubber	translucent	7,8/8,0	6,0/6,6	7,3/7,5	5,7/5,8	6,2/6,3	5,4/6,7	3,9/4,1	++	150°C/40°C
160 µm	tackified acrylic	translucent	10,5/12,6	9,3/11,6	10,6/12,4	8,7/9,9	8,6/12,1	6,7/7,4	4,9/5,4	+	200°C/80°C
160 µm	synthetic rubber	translucent	15,6/17,3	12,7/14,6	13,7/15,9	11,6/14,9	12,5/16,3	9,8/12,0	8,8/9,7	++	80°C*/40°C*
125 µm	tackified acrylic	translucent	9,0/11,2	8,0/10,8	9,3/10,4	6,9/8,7	7,0/11,4	5,6/6,2	4,1/4,8	+	200°C/80°C
115 µm	tackified acrylic	translucent	6,2/7,5	5,3/6,1	5,4/5,8	4,6/5,1	5,0/7,5	3,3/3,8	2,5/2,6	+	200°C/80°C
110 µm	synthetic rubber	translucent	9,1/10,5	8,0/10,3	9,4/13,5	8,4/10,2	8,7/12,9	7,7/8,8	5,1/6,1	+*	80°C*/40°C*
100 µm	tackified acrylic	translucent	3,0/4,7	2,4/3,4	1,8/3,4	1,8/2,5	2,2/3,8	1,1/1,2	0,5/0,5	–	200°C/80°C

Evaporator mounting in appliance industry, e.g.:
- tesa® 4959
- tesa® 51571

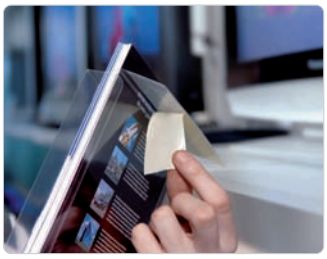
Splicing of paper and film tracks, e.g.:
- tesa® 4959
- tesa® 4961
- tesa® 4987

++ very good + good o medium - low

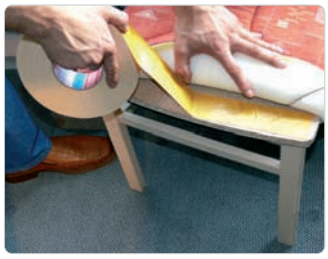
tesa® Double-sided Cloth Tapes: Flexible, Stable and Providing High Shear Strength

Double-sided cloth tapes

Product	Product description	Product application	Backing
tesa® 4964	- Thick adhesive coating weight allows to bond on rough surfaces - Good bonding results on non-polar surfaces (PP, PE) - Limited aging and temperature resistance	- Splicing of cloth tracks - Fixing of cloth tracks in preparation for printing process - Laminating of synthetic surfaces and carpets - Finishing of decoration material - Lamination of shoe insoles and heel protection	cloth
tesa® 4934	- Superior initial adhesive power - Strong tacky adhesive mass - Suited for rough and fiber etched surfaces - Hand tearable	- Carpet mounting - Recommended for hard-to-bond surfaces - Bonding extruded point of sale components	scrim



Mounting point of sale components, e.g.
- tesa® 4934



Mounting of synthetic materials, e.g.
- tesa® 4964

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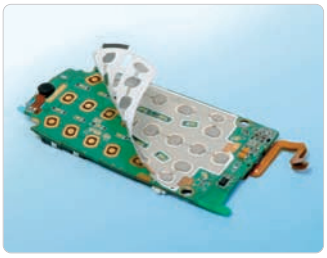
tesa® Transfer Tape Without a Carrier: Simply Thin and Flexible

Double-sided transfer tapes

Product	Product description	Product application	Backing
tesa® 68105	- High shear strength also under temperature load - Outstanding plasticizers resistivity - Low outgassing - Excellent aging resistance - Easy to reposition - UL recognized: UL 969	- Fastening of name plates - Lamination of multiple layer constructions	without backing
tesa® 4900	- Strong initial adhesive power - UV and aging resistant - Outstanding solvent and chemical resistance	- Mounting of lightweight displays and posters - Splicing of papers and films especially flying roll change	without backing
tesa® 4985	- High initial bondig strength - Excellent bonding properties on synthetic materials - Outstanding humidity and temperature resistance	- Mounting of posters and pictures - Lamination to patterns of cloth - Splicing of film and paper tracks	without backing



Lamination of multi-layer electronic components, e.g.
- tesa® 68105

Mounting of name plates, e.g.
- tesa® 68105

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Thickness without liner	Adhesive	Color	Peel adhesion in N/cm - immediate/after 14 days Steel	ABS	PC	PET	PVC	PP	PE	Shear resistance [23°C]	Temperature resistance short-/long-term
390 µm	natural rubber	white	7,5/8,0	7,3/7,8	7,4/7,5	7,2/7,3	6,9/7,0	6,8/6,9	5,4/5,5	o	160°C/40°C
220 µm	synthetic rubber	white	15,5/17,6	11,1/19,9	17,3/24,2	9,9/14,3	12,9/22,1	10,6/15,9	7,6/8,3	o	60°C/40°C

Mounting of fabrics and textiles, e.g.
- tesa® 4964

Mounting carpet sockets, e.g.
- tesa® 4934

++ very good + good o medium - low

Thickness without liner	Adhesive	Color	Peel adhesion in N/cm - immediate/after 14 days Steel	ABS	PC	PET	PVC	PP	PE	Shear resistance [23°C]	Temperature resistance short-/long-term
50 µm	pure acrylic	transparent	4,6/6,7	4,3/6,0	5,0/6,6	3,5/4,5	4,0/6,7	1,3/2,0	1,1/1,6	++	200°C/100°C
50 µm	pure acrylic, fiber-reinforced	transparent	3,4/3,8	2,9/4,6	3,1/5,0	2,4/3,7	2,7/5,6	1,3/2,6	0,8/1,0	o	200°C/80°C
50 µm	tackified acrylic, fiber-reinforced	transparent	8,0/11,1	6,9/9,3	7,6/9,7	4,9/6,4	6,8/9,4	3,5/5,7	4,1/4,9	o	200°C/80°C

Splicing of paper and film tracks, e.g.
- tesa® 4900
- tesa® 4985

++ very good + good o medium - low

tesa® Double-sided Differential Tapes Enable Lamination of Substrates with Differing Bonding

Double-sided tapes with differential adhesive

Product	Product description	Product application	Backing
tesa® 51960	- Differential adhesive coating weight - Residue-free removal - Aging and plasticizer resistant	- Frame and shock adhesion of carpets with foam backing - Laminating PVC and CV floors	PP film reinforced fabric
tesa® 4914	- Excellent aging, humidity and temperature resistance - High initial adhesive power - Flexible and elastic tape properties allow to stretch and to bend - To a large extent plasticizer resistant - Very good aging, humidity and temperature resistance	- Mounting of automotive interior components - Leather processing in shoe- and bag manufacturing - Manufacturing of textiles	non-woven
tesa® 4720	- Double-sided self-adhesive tape with two different acrylic adhesives - Open side: high adhesion level/secure bond of different substrates - Covered side: low adhesion level, residue free removability from different substrates	- Mounting components in the consumer electronics industry electronics industry 'requiring a removability of the tape - Mounting of LCD panels and backlight unit	PET
tesa® 4917	- Differential adhesive tape - different bonding power on each tape side - High aging resistance - Very good humidity resistance - 4917 is available in cross-wound spool with/without fingerlift	- Reversible/ non-permanent sealing of plastic bags - Production support in the manufcaturing of compounds	PP
tesa® 51903	- Differential adhesive power - Good initial adhesive bonding strength - Very good aging, solvent and chemicals resistance	- Bag sealing of thin bags - Mounting in lithography processes	PVC

Resealable closing of plastic bags, e.g.
- tesa® 4917

Laminating carpets, e.g.
- tesa® 51960

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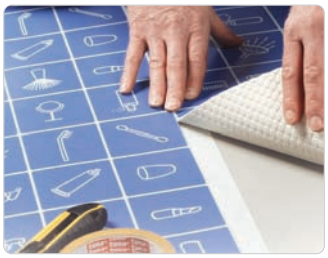
Requirements on Each Side

Thickness without liner	Adhesive	Color	Peel adhesion in N/cm - immediate/after 14 days Steel	ABS	PC	PET	PVC	PP	PE	Shear resistance [23°C]	Temperature resistance short-/long-term
250 µm	tackified acrylic	transparent	open: 4,7/6,6 covered: 9,0/13,7	open: 5,0/6,1 covered: 9,5/11,1	open. 5,2/5,4 covered: 10,4/12,8	open: 4,4/5,4 covered: 8,3/10,6	open: 5,0/6,2 covered: 9,1/13,8	open: 3,5/4,8 covered: 4,2/6,2	open: 3,0/3,2 covered: 4,5/5,1	o	50°C/50°C
200 µm	tackified acrylic	translucent	open: 7,0/7,8 covered: 8,2/9,3	open: 5,6/7,7 covered: 7,6/7,6	open: 5,8/7,4 covered: 8,1/8,2	open: 4,8/6,2 covered: 7,8/7,9	open: 4,8/7,7 covered: 7,8/7,8	open: 3,6/4,4 covered: 5,5/6,5	open: 3,2/3,4 covered: 4,2/5,3	-	140°C/80°C
100 µm	pure acrylic/ tackified acrylic	transparent	open: 8,5/12,9 covered: 4,0/5,7	open: 7,1/10,2 covered: 2,7/4,7	open: 10,7/12,0 covered: 2,8/5,2	open: 7,0/6,8 covered: 1,8/2,8	open: 8,6/11,5 covered: 3,6/5,3	open: 3,8/5,3 covered: 1,3/1,6	open: 3,9/4,9 covered: 0,7/1,1	+	200°C/80°C
90 µm	tackified acrylic	transparent	open: 8,2/11,4 covered: 4,5/5,1	open: 6,9/10,1 covered: 4,2/6,0	open: 9,0/11,0 covered: 4,0/6,8	open: 6,6/9,3 covered: 3,1/4,7	open: 6,5/11,0 covered: 4,0/7,0	open: 3,8/6,9 covered: 1,9/2,6	open: 3,9/4,1 covered: 1,6/2,3	+	120°C/80°C
86 µm	tackified acrylic	transparent	open: 2,4/3,0 closed: 3,5/4,6	open: 1,9/2,0 closed: 2,5/3,6	open: 1,6/1,8 closed: 2,4/4,8	open: 1,8/2,2 closed: 2,1/3,7	open: 1,8/2,5 closed: 2,5/5,2	open: 1,7/2,4 closed: 0,5/0,8	open: 1,2/1,8 closed: 0,4/0,7	-	70°C/60°C

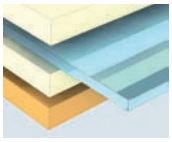
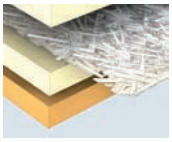
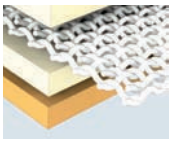
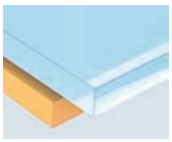


Laminating PVC and CV floors, e.g.
- tesa® 51960

Leather processing in shoe- and bag manufacturing, e.g.
- tesa® 4914

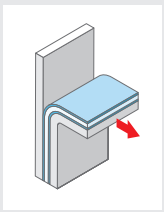
++ very good + good o medium - low

tesa® Double-sided Tape Backing Categories

Backing		
Filmic backing		■ High elongation strength ■ Feasible for die-cutting ■ Suitible for the use in production processes with high speed ■ No breaking in machine process ■ Good electrical insulation properties
Non-woven backing		■ Flexible and high conformability ■ Tear proof but handtearable ■ Noise dampening and cushioning characteristics
Cloth backing		■ Flexible ■ High temperature resistance ■ Feasible for removable applications ■ Thick tapes are abrasion resistant
Transfer tape		■ No backing ■ Flexible and high conformability

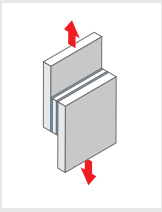
tesa® Test Methods

Peel adhesion



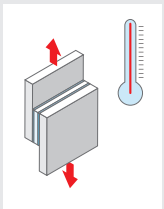
Adhesive strength describes the bonding power of the tape to a substrate. Hence, the value is an important parameter in any application. Its value depends significantly on the surface characteristics, the pressure and the time exposed to the bonding materials. A tape's peel adhesion is measured in Newton/cm by peeling the tape with 180°- or 90° degree angel at constant speed from the test substrate.

Shear resistance



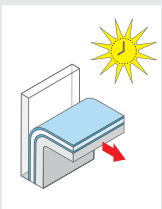
Shear resistance is defined by the inner cohesiveness of an adhesive and describes the holding power of a tape in a product application. Thus shear resistance applies when the tape encounters high stress in the product application. A tape's shear resistance is measured in minutes by loading the tape with 10 N when adhered to a steel substrate on a 2.6 cm^2 bonding area at a temperature environment of 23° C and 50 % humidity.

Temperature resistance



Temperature resistance characterizes the bonding power of a tape in a product application at elevated temperatures. It is divided into short- and long-term. The tape's temperature resistance is measured by applying a 20 g load onto a surface of 1 cm^2 in a specific temperature environment and time period. Subsequently, the tape's shear distance is measured at elevated temperatures.

UV resistance



UV resistance describes the bonding power of the pressure sensitive adhesive tape, when exposed to UV radiation. UV resistance is measured by comparing the current bonding values with those measured a week later. In this way the tape's peel adhesion is measured on a glass substrate.

tesa® Liner

tesa® release liners

	Product	Brown glassine [71 µm]	Yellow glassine liner [71 µm]	White paper [84µm]	PE coated printed [122 µm]	Red MOPP [80 µm]	White friction MOPP [80 µm]	White structu-red PP [85 µm]	White PET film [50µm]	Trans-parent film [50 µm]	HDPE red [100 µm]
Filmic tapes	tesa® 68327				PV4						
	tesa® 4926	PV0									
	tesa® 4965	PV1			PV4	PV0	PV8				
	tesa® 68320				PV4						
	tesa® 4975					PV6					
	tesa® 4967	PV0				PV6					
	tesa® 4928	PV0									
	tesa® 4980	PV42							PV51	PV50	
	tesa® 4972	PV0/42			PV43						
	tesa® 4983	PV0/42								PV7	
	tesa® 51968	PV0									
	tesa® 51970	PV0		PV1		PV6		PV2			
	tesa® 64620	PV0									
	tesa® 64624	PV0									
	tesa® 51908	PV1				PV0					
	tesa® 64621	PV0									
	tesa® 4968	PV0									
	tesa® 4970	PV0									
	tesa® 4963	PV0		PV1							
Non-woven tapes	tesa® 4961	PV0									
	tesa® 4962	PV0				PV6					
	tesa® 51571	PV0									
	tesa® 4987			PV2							
	tesa® 4959	PV0				PV6					
	tesa® 51570	PV0									
	tesa® 4960	PV0									
Cloth tapes	tesa® 4964	PV0									
	tesa® 4934		PV0								
Transfer tapes	tesa® 68105				PV0						
	tesa® 4900	PV0									
	tesa® 4985	PV0									
Differential adhesive	tesa® 51960	PV0									
	tesa® 4914										PV0
	tesa® 4720	PV0									
	tesa® 4917					PV0					
	tesa® 51903										

Get in Touch with tesa® Application Solutions for Your Business

tesa offers a broad variety of double-sided tapes for the use in industrial markets worldwide. Thus, tesa supports and improves production processes as well as product applications in key industries along the entire value chain. Over the years, tesa has earned an excellent reputation as a reliable business partner in automotive, building industry, consumer electronics and paper, print and flexo.

Detailed Information

For further information on tesa's application solutions, please refer to the following brochures:

- tesa - Partner to the Paper and Printing Industry
- tesa® solutions for consumer electronics
- With diversity and strength - Partners to the automobile industry
- tesa® solutions for solar industry
- tesa® solutions for furniture industry

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