



10/2016



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



OUR CLOTH TAPE ASSORTMENT

High-Quality Solutions for Industrial and Handcraft Needs



tesa SE
Phone: +49 40 88899 0
tesa.com/company/locations

tesa.com

Structure of a cloth tape

Top coat
The type of top coat has a big influence the following tape properties:

- Color brightness (glossy/matt)
- Marking and printability
- Resistance against solvents/ moisture/humidity

Plastic layer
The coating affects major characteristics of the cloth tape:

- Color, gloss
- Barrier function
- Stabilization and protection of the cloth fabric



Fabric (woven/knitted)
The cloth backing is responsible for different features of the adhesive tape:

- Flexibility
- Mechanical strength
- Many other features

Adhesive system
Depending on the specific adhesive system (natural or synthetic rubber), the following features are affected:

- Adhesion/peel
- Shear strength/cohesion
- Tack/wetting

We are one of the world's leading manufacturers of self-adhesive tapes, covering a wide range of applications. Over 6,000 products are sold in over 100 countries, either direct or via a network of approved distributors. We offer a wide range of different cloth tapes that effectively meet the application requirements of our customers.

Our cloth tapes are ideal products for the daily demands encountered in industry and by craftsmen – the applications are endless, including usage in extreme temperature and climatic conditions.

Specialties and Premium tapes: For sophisticated applications with a high level of properties: highly temperature-resistant, excellent tensile strength, and straight longitudinal and horizontal tear edges.

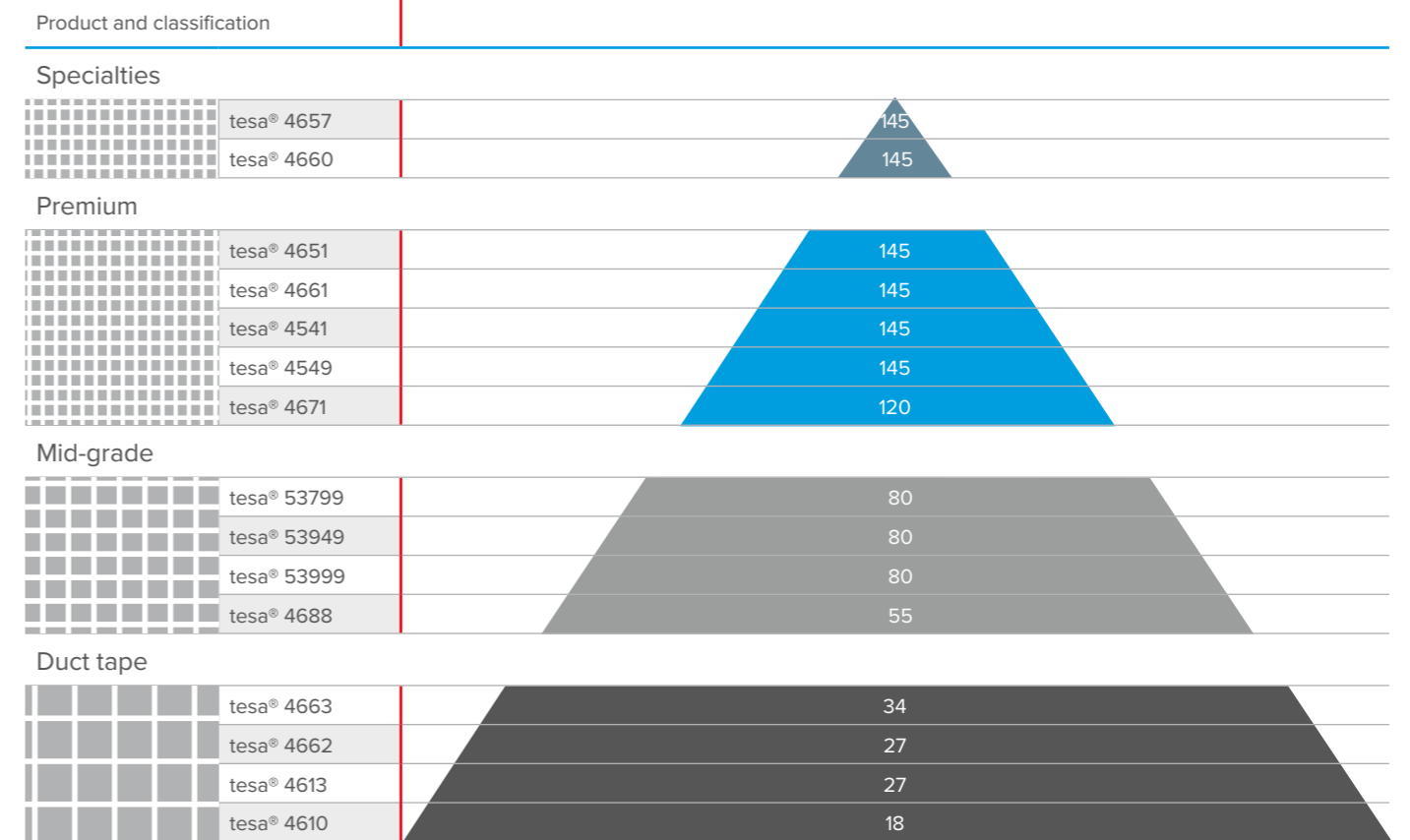
Mid-grade: Ideal tapes for temporary repairing applications. They can be removed quickly and residue-free after usage.

Duct tapes: The universal helper – especially suitable for general purpose and temporary applications. They have a lower tensile strength and limited resistance to weathering.

This folder will assist you in finding the perfect tape solution for your specific requirement: for any maintenance, repairing, and overhaul task in technical and industrial plants, for technical services in industry, or for competent and supportive solutions in arts and entertainment.



Our cloth tape qualities



* Mesh is the measure for quality and performance of woven fabric and counted by the sum of the threads in machine (warp) and cross (weft) direction per square inch.

Application factors

Product characteristics	Specialties		Premium				Mid-grade				Duct tape				
	tesa® 4657	tesa® 4660	tesa® 4651	tesa® 4661	tesa® 4541	tesa® 4549	tesa® 4671	tesa® 53799	tesa® 53949	tesa® 53999	tesa® 4688	tesa® 4663	tesa® 4662	tesa® 4613	tesa® 4610
Humidity resistance	••••	••••	••••	••••	••	••	•••	••••	••••	••••	••••	••••	••••	••••	••••
Ageing resistance (UV)	••••	••••	•••	•••	••	••	•••	•••	•••	•••	•••	•••	••	•	••
Solvent resistance	••••	••••	••••	••••	•	•	•••	•••	•••	•••	•••	••	••	••	••
Abrasion resistance	••••	••••	••••	••••	•••	•••	•••	••	••	••	••	••	•	•	•
Flexibility	•••	•••	•••	•••	••••	••••	•••	••	••	••	•••	••	••	•••	•••
Hand-tearability	••••	••••	••••	••••	••	••	••••	•••	•••	•••	•••	••	•••	•••	•••
Writable surface	••••	••••	••••	••••	••	••	•••	••	••	••	••	••	••	••	••
Residue-free removability	••••	••••	•••	•••	••	•••	•••	••	•••	•••	••	••	••	•	•

•••• Very good ••• Good •• Medium • Low





HIGH-QUALITY SOLUTIONS FOR INDUSTRIAL AND HANDCRAFT NEEDS





Specialties	Product description and application	Technical information		Properties
	<p>tesa® 4657</p> <ul style="list-style-type: none"> High-grade acrylic-coated cloth tape Thermosetting natural rubber adhesive Very ageing-resistant (allowing for permanent applications) Removable without residue even after high temperature exposure Very resilient cloth tape, also available as low unwinding version 	Backing	Acrylic-coated cloth	
	Adhesive	Natural rubber	Total thickness [µm]	
	<p>tesa® 4660</p> <ul style="list-style-type: none"> Special acrylic-coated cloth tape with a printable surface, especially recommended for flexographic printing Thermosetting natural rubber adhesive High adhesion on almost any surface Very high tensile strength Flexible but also strong tape 	Backing	Acrylic-coated cloth	
	Adhesive	Natural rubber	Total thickness [µm]	
		Adhesion to steel [N/cm]	4	
		Tensile strength [N/cm]	100	
		Elongation at break [%]	7.5	
		Color	●●	
		Temperature resistance [30 min]	180°C	





Premium	Product description and application	Technical information		Properties
	<p>tesa® 4651</p> <ul style="list-style-type: none"> Powerful high-quality acrylic-coated cloth tape Very strong adhesion even on rough and slightly oily surfaces Highly abrasion-resistant Flexible and conformable Easy to write on Excellent tensile strength 	Backing	Acrylic-coated	
	Adhesive	Natural rubber	Total thickness [µm]	
		Adhesion to steel [N/cm]	3.3	
		Tensile strength [N/cm]	100	
		Elongation at break [%]	13	
		Color	●○●●●●●●	
		Temperature resistance [30 min]	130°C	
	<p>tesa® 4661</p> <ul style="list-style-type: none"> Strong acrylic-coated cloth tape All-round cloth tape for a wide range of applications, often used for wrapping components High adhesion, even on rough surfaces Very flexible and conformable backing Highly water- and abrasion-resistant Available as SAF roll 	Backing	Acrylic-coated	
	Adhesive	Natural rubber	Total thickness [µm]	
		Adhesion to steel [N/cm]	5.8	
		Tensile strength [N/cm]	100	
		Elongation at break [%]	12	
		Color	●○●●●●●●	
		Temperature resistance [30 min]	140°C	
	<p>tesa® 4541</p> <ul style="list-style-type: none"> Highly tear-resistant uncoated cloth tape Very flexible, smooth, and conformable tape, convenient for a wide range of applications Good adhesion even on rough and slightly oily surfaces Adapts to uneven surfaces without creasing 	Backing	Uncoated cloth	
	Adhesive	Natural rubber	Total thickness [µm]	
		Adhesion to steel [N/cm]	3.6	
		Tensile strength [N/cm]	90	
		Elongation at break [%]	16	
		Color	●○●●●●	
		Temperature resistance [30 min]	130°C	

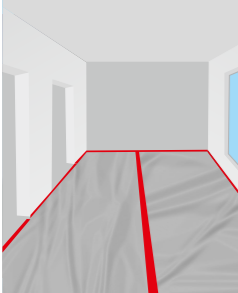



Premium	Product description and application	Technical information		Properties
	<p>tesa® 4549</p> <ul style="list-style-type: none"> Highly tear-resistant uncoated cloth tape Very flexible and conformable tape Low unwinding force makes it ideal for machine-driven processes and a wide range of other applications Adapts to uneven surfaces without creasing 	Backing	Uncoated cloth	
	Adhesive	Natural rubber	Total thickness [µm]	
		Adhesion to steel [N/cm]	3.6	
		Tensile strength [N/cm]	100	
		Elongation at break [%]	12.5	
		Color	●○	
		Temperature resistance [30 min]	140°C	
	<p>tesa® 4671</p> <ul style="list-style-type: none"> Strong acrylic-coated cloth tape Premium gaffer tape in the assortment for 'Arts & Entertainment' applications High adhesion even on rough surfaces Very matt surfaces for black and fluorescent colors Easy to remove without residue Solvent-free adhesive 	Backing	Acrylic-coated cloth	
	Adhesive	Natural rubber	Total thickness [µm]	
		Adhesion to steel [N/cm]	3.5	
		Tensile strength [N/cm]	70	
		Elongation at break [%]	9	
		Color	●○●●●●●●	
		Temperature resistance [30 min]	140°C	





Mid-grade	Product description and application	Technical information		Properties
	<p>tesa® 53799</p> <ul style="list-style-type: none"> Polyethylene-coated mid-grade cloth tape Very good adhesion, even on rough surfaces Excellent tensile strength Water-repellent Easy to tear by hand All-rounder used for repairing and construction applications 	Backing	PE-extruded cloth	
	Adhesive	Natural rubber	Total thickness [µm]	
		Adhesion to steel [N/cm]	4.7	
		Tensile strength [N/cm]	77	
		Elongation at break [%]	11	
		Color	●●●●○	
		Temperature resistance [30 min]	110°C	
	<p>tesa® 53949</p> <ul style="list-style-type: none"> Matt gaffer tape especially designed for 'Arts & Entertainment' industry Ideal solution for a wide range of applications whenever a light-absorbing and non-reflective surface is important Covers shiny and glossy surfaces Easy to tear by hand Removable without residue 	Backing	PE-extruded cloth	
	Adhesive	Natural rubber	Total thickness [µm]	
		Adhesion to steel [N/cm]	1.6	
		Tensile strength [N/cm]	85	
		Elongation at break [%]	14	
		Color	○●●	
		Temperature resistance [30 min]	125°C	
	<p>tesa® 53999</p> <ul style="list-style-type: none"> Gaffer tape with an excellent combination of a very matt backing and a black adhesive mass The ideal tape for almost unnoticeable applications on stages Light-absorbing, non-reflective, prevents the reflection of light Very good protection from dust and dirt 	Backing	PE-extruded cloth	
	Adhesive	Natural rubber	Total thickness [µm]	
		Adhesion to steel [N/cm]	2.6	
		Tensile strength [N/cm]	73	
		Elongation at break [%]	11	
		Color	●	
		Temperature resistance [30 min]	130°C	

Mid-grade	Product description and application	Technical information		Properties
	<p>tesa® 4688</p> <ul style="list-style-type: none"> Standard PE-coated cloth tape Typical repairing tape, convenient for a variety of needs with very good handling characteristics Certified by AREVA according to the requirements of the Siemens AG standard TLV 9027/01/06 for nuclear power stations Very good adhesion to multiple surfaces 	Backing	PE-extruded cloth	  
		Adhesive	Natural rubber	
		Total thickness [µm]	260	
		Adhesion to steel [N/cm]	4.5	
		Tensile strength [N/cm]	52	
		Elongation at break [%]	9	
		Color	●●●●●●●●	
		Temperature resistance [30 min]	110°C	

Duct tape	Product description and application	Technical information		Properties
	<p>tesa® 4663</p> <ul style="list-style-type: none"> Premium duct tape High tensile strength compared to conventional duct tape grades Perfect adhesion under cold outdoor conditions Excellent adhesion even on rough and dirty surfaces 	Backing	PE-laminated cloth	  
		Adhesive	Natural rubber	
		Total thickness [µm]	290	
		Adhesion to steel [N/cm]	4.8	
		Tensile strength [N/cm]	50	
		Elongation at break [%]	18	
		Color	●	
		Temperature resistance [30 min]	95°C	

	<p>tesa® 4662</p> <ul style="list-style-type: none"> Strong duct tape with typical duct tape features Suitable for general purpose applications Good adhesion to multiple materials High initial tack Water-repellent 	Backing	PE-laminated cloth	  
		Adhesive	Natural rubber	
		Total thickness [µm]	230	
		Adhesion to steel [N/cm]	4.4	
		Tensile strength [N/cm]	30	
		Elongation at break [%]	18	
		Color	●●●●	
		Temperature resistance [30 min]	95°C	

	<p>tesa® 4613</p> <ul style="list-style-type: none"> Utility grade duct tape Good adhesion even on rough surfaces Easy to tear by hand Water-repellent Very flexible due to low thickness 	Backing	PE-laminated cloth	  
		Adhesive	Natural rubber	
		Total thickness [µm]	180	
		Adhesion to steel [N/cm]	4.3	
		Tensile strength [N/cm]	30	
		Elongation at break [%]	18	
		Color	●●●	
		Temperature resistance [30 min]	95°C	

	<p>tesa® 4610</p> <ul style="list-style-type: none"> Low-grade duct tape with basic tape features and attractive performance profile Very good adhesion level on various substrates High initial tack on multiple materials Easy to tear by hand Easy to unwind 	Backing	PE-laminated cloth	  
		Adhesive	Synthetic rubber	
		Total thickness [µm]	150	
		Adhesion to steel [N/cm]	4.5	
		Tensile strength [N/cm]	30	
		Elongation at break [%]	20	
		Color	●●	
		Temperature resistance [30 min]	95°C	

Technical data

Product	Backing	Mesh [threads/inch ²]	Adhesive	Total thickness [µm]	Adhesion to steel [N/cm]	Tensile strength [N/cm]	Elongation at break [%]	Temperature resistance short/long term [°C/30 min]
---------	---------	-----------------------------------	----------	----------------------	--------------------------	-------------------------	-------------------------	--

Specialties								
tesa® 4657	Acrylic-coated cloth	145	Natural rubber	290	4.6	105	7.5	180
tesa® 4660	Acrylic-coated cloth	145	Natural rubber	262	4	100	7.5	180

Premium								
tesa® 4651	Acrylic-coated cloth	145	Natural rubber	310	3.3	100	13	130
tesa® 4661	Acrylic-coated cloth	145	Natural rubber	300	5.8	100	12	140
tesa® 4541	Uncoated cloth	145	Natural rubber	270	3.6	90	16	130
tesa® 4549	Uncoated cloth	145	Natural rubber	300	3.6	100	12.5	140
tesa® 4671	Acrylic-coated cloth	120	Natural rubber	280	3.5	70	9	140

Mid-grade								
tesa® 53799	PE-extruded cloth	80	Natural rubber	310	4.7	77	11	110
tesa® 53949	PE-extruded cloth	80	Natural rubber	310	1.6	85	14	125
tesa® 53999	PE-extruded cloth	80	Natural rubber	280	2.6	73	11	110
tesa® 4688	PE-extruded cloth	55	Natural rubber	260	4.5	52	9	110

Duct tape								
tesa® 4663	PE-laminated cloth	34	Natural rubber	290	4.8	50	18	95
tesa® 4662	PE-laminated cloth	27	Natural rubber	230	4.4	30	18	95
tesa® 4613	PE-laminated cloth	27	Natural rubber	180	4.3	30	18	95
tesa® 4610	PE-laminated cloth	18	Synthetic rubber	150	4.5	30	20	95

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.