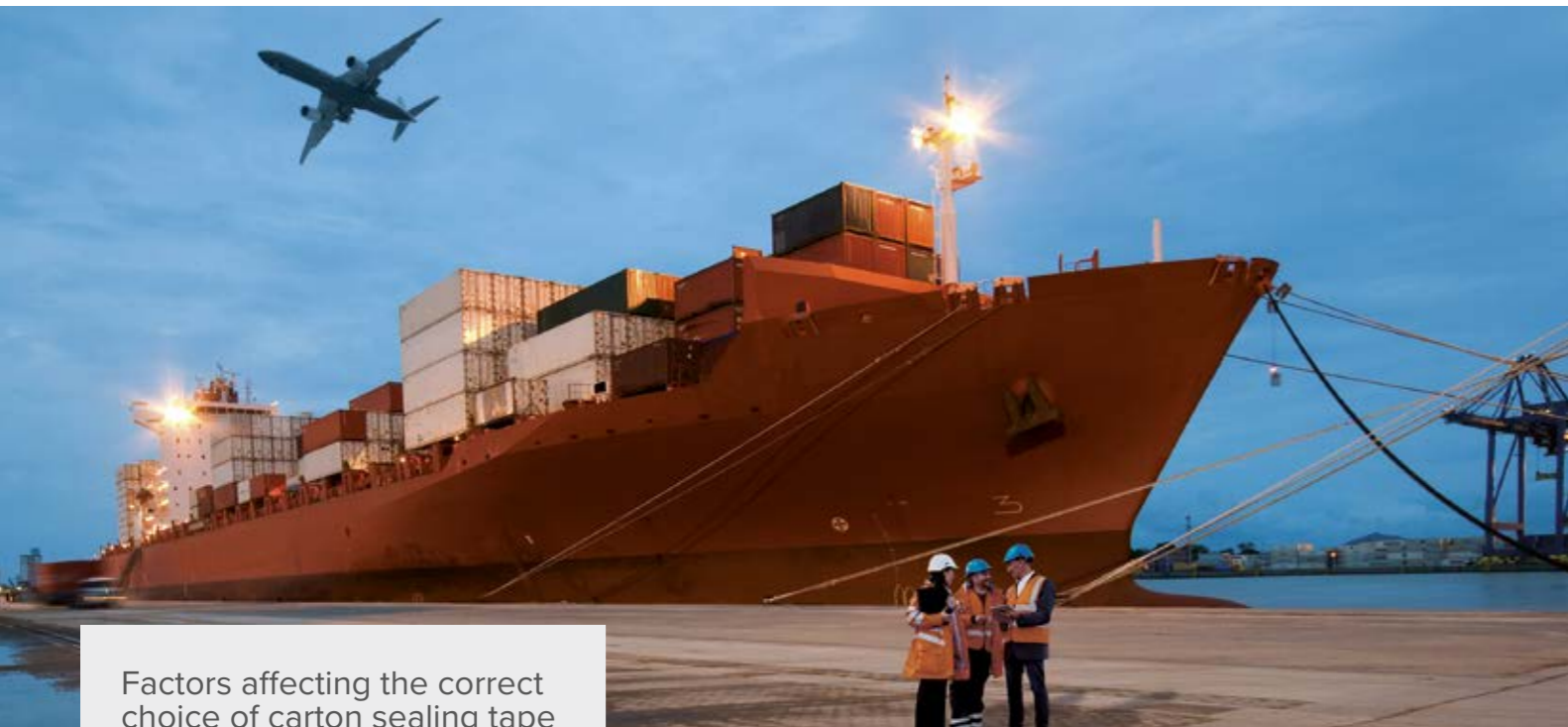


A photograph of a warehouse interior. In the foreground, a man with a grey beard and a blue sweater is holding a tablet. A woman in a light grey blazer is pointing at a clipboard he is holding. They are surrounded by tall shelves filled with cardboard boxes, many of which have the tesa logo on them. The lighting is bright and industrial.

OUR TAPE SOLUTIONS FOR SECURE PACKAGING

Assortment Overview for Packaging Tapes

SAFE JOURNEY SAFE ARRIVAL



Factors affecting the correct choice of carton sealing tape

Type of cardboard packaging selected

- Quality of corrugated cardboard
- Weight of packaging unit
- Value of product
- Other specifications

Application processes

- Manual or mechanical processing
- Type of seal

Transport and storage processes

- Climatic conditions
- Mechanical strains
- Type of transport selected

Adhesive tape selected

- Backing material
- Adhesive compound
- Color of tape
- Ease of printing

Secure packaging is the primary requirement to ensure that a product reaches its destination intact. For the recipient, it provides en route protection from a variety of factors.

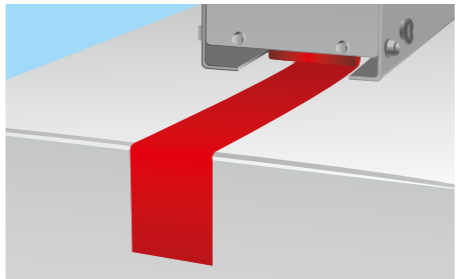
Whether the carton is light or heavy, traveling a short distance by rail or taking a long journey by ship – we have developed our current packaging tape range to meet every requirement for the reliable sealing of cartons. Our packaging tapes have proven their worth a million times over as a safe solution for a huge range of conditions.

This folder will support you in finding the right adhesive tape for your specific requirement. Therefore, the following pages provide a detailed overview of our current assortments for carton sealing, inner packaging, and tape dispensers which make your packaging efficient and secure.

Carton sealing tapes

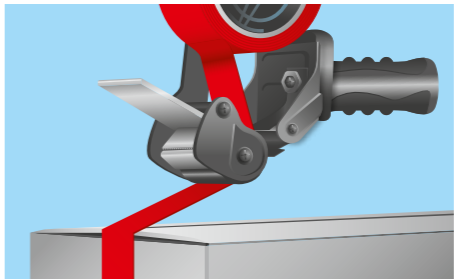
Our carton sealing solutions are used for securing shipments as well as reinforcing carton closures.

Depending on individual designs, our carton sealing tapes come with a PP, PVC, or paper backing and are suitable for both manual and mechanical processing.



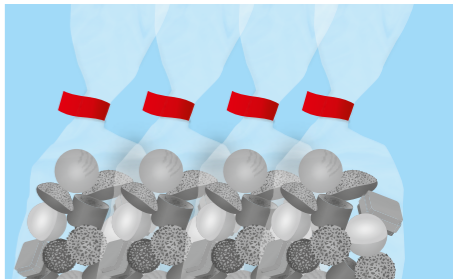
Tape dispenser

In order to make the packaging process fast, efficient, and secure, we supply special tape dispensers for manual handling. These dispensers are customized solutions for our adhesive tapes and were developed in close collaboration with users to ensure perfect ergonomics in the working environment.



Inner packaging

For packaging of food, single items, and small industrial parts, our inner packaging tapes seal securely, easily, and hygienically. Consequently, our inner packaging tapes are used in a wide variety of usages such as sealing small boxes (cardboard or plastic), cans, and bags.



OUR CARTON TAPE SEALS SECURELY

Paper backing

- High initial tack for an immediate seal
- Highly resistant against shock impacts
- Matches the carton in appearance
- Printable
- Hand tearable



	Paper backing	
	tesa® 4313 PV0	tesa® 4313 PV2
Adhesive	Synthetic rubber	Synthetic rubber
Total thickness [µm]	107	125
Backing thickness [µm]	95	95
Adhesion to steel [N/cm]	7.5	9.5
Tensile strength [N/cm]	50	50
Elongation at break [%]	8	8
Color	●○	●○

PP backing – silent unwinding

- Very high aging, UV and temperature resistance
- Low noise unwinding
- Solvent-free adhesive
- High initial tack



	PP backing silent unwinding			
	tesa® 64044	tesa® 4195	tesa® 4024	tesa® 64014
Adhesive	Acrylic	Acrylic	Acrylic	Acrylic
Total thickness [µm]	85	60	50	45
Backing thickness [µm]	50	35	28	25
Adhesion to steel [N/cm]	3.5	3.0	3.0	2.8
Tensile strength [N/cm]	70	55	45	35
Elongation at break [%]	160	140	140	140
Color	●○	●○	●○○	●○○
Specials	Suitable for dangerous goods < 40kg			

PVC backing

- Robust backing
- Strong natural rubber adhesive
- Silent and smooth unwinding
- High tear resistance
- Easy printable

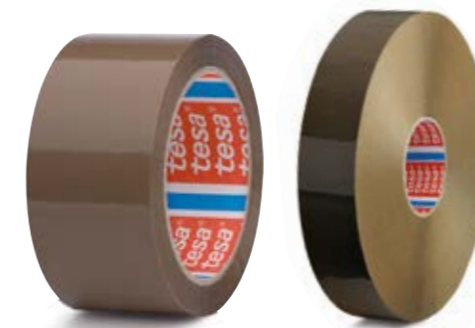


	PVC backing			
	tesa® 4122	tesa® 4124	tesa® 4120	tesa® 4100
Adhesive	Natural rubber	Natural rubber	Natural rubber	Natural rubber
Total thickness [µm]	88	65	49/52*	65
Backing thickness [µm]	60	38	30/32*	48
Adhesion to steel [N/cm]	2.0	3.2	2.0	2.2
Tensile strength [N/cm]	65	60	43/45*	47
Elongation at break [%]	100	60	75	75
Color	●○	●○○	●○○	●○○
Specials	Suitable for dangerous goods < 45kg	Suitable for dangerous goods < 15kg		Easy unwinding

*Short roll/long roll > 66m

PP backing – easy unwinding

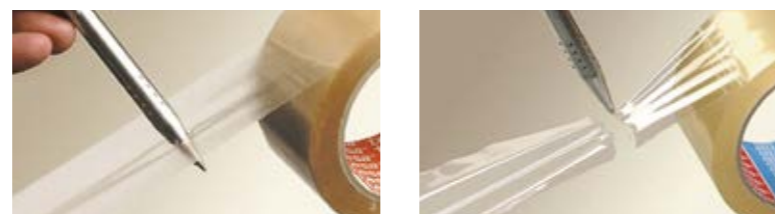
- Noisy but easy unwinding
- Highly suitable for manual and mechanical processing
- For lightweight to medium-weight cartons






	PP backing easy unwinding		
	tesa® 4089	tesa® 4280	tesa® 4282
Adhesive	Natural rubber	Synthetic rubber	Synthetic rubber
Total thickness [µm]	46	42	45
Backing thickness [µm]	28	25	28
Adhesion to steel [N/cm]	2.2	4.8	4.8
Tensile strength [N/cm]	43	40	43
Elongation at break [%]	145	145	145
Color	●○○	●○	●○

The PP/PVC backing test

- Left: PVC backings are more tear-resistant and can be subjected to greater strain.
 Right: PP backings tear when damaged.



FIND THE RIGHT CARTON SEALING TAPE

	Carton weight	Technical conditions	Recommendation		Speciality
Low max. 15 kg		Standard 0-35°C	tesa® 4089	tesa® 4280	tesa® 4313
		High 0-70°C	tesa® 64014	tesa® 4024	tesa® 4100
		Extreme 0-70°C & humidity up to 90%	tesa® 4120	tesa® 4195	
Medium max. 30 kg		Standard 0-35°C	tesa® 4024	tesa® 4089	tesa® 4313
		High 0-70°C	tesa® 4195	tesa® 4124	tesa® 4100
		Extreme 0-70°C & humidity up to 90%	tesa® 4124	tesa® 64044	
High over 30 kg		Standard 0-35°C	tesa® 64044	tesa® 4122	See the tesa filament tape range.
		High 0-70°C			
		Extreme 0-70°C & humidity up to 90%			



	Paper backing	PVC backing				PP backing silent unwinding				PP backing easy unwinding	
	tesa® 4313	tesa® 4122	tesa® 4124	tesa® 4100	tesa® 4120	tesa® 64044	tesa® 4195	tesa® 4024	tesa® 64014	tesa® 4089	tesa® 4280
Manual processing (short roll)	•	•	•	•	•	•	•	•	•	•	•
Mechanical processing (long roll)	•	•	•	•	•	•	•	•	•	•	4282
Silent unwinding		•	•	•	•	•	•	•	•		
Easy unwinding	•			•						•	•
High tear resistance		•	•			•					
Suitable for dangerous goods		•	•			•					
Suitable for deep freezing		•	•	•	•					•	
Printable	•	•	•	•	•	•*	•*	•*	•*		
Hand tearable	•										
Color											
White	•		•	•	•			•		•	
Transparent		•	•	•	•	•	•	•	•	•	•
Brown	•	•	•	•	•	•	•	•	•	•	•

* Standard version of the product is not printable, but there is a printable version available upon request. This version has easy but noisy unwinding.

EFFICIENT AND SECURE PACKAGING PROCESS

Classic tabletop dispensers

tesa® 57422

- Well-designed professional dispenser for our strapping and packaging tapes
- Non-slip base, sturdy case
- Serrated blade for a clean, convenient cut

tesa® 6090

- Robust dispenser with steel case for tesa strapping and packaging tapes
- Smooth blade for straightedge cuts
- Separate blade for each roll

tesa® 6012

- Professional application of tesa packaging tapes
- Can be filled with either one wide roll or two narrow rolls of tape
- Can be fastened securely with the supplied clamp or with screws

	tesa® 57422	tesa® 6090	tesa® 6012
Weight [g]	2,000	2,500	720
Length/Width/Height [mm]	230/70/130	270/70/125	170/65/125
Max. roll diameter [mm]	110	125	160
Max. roll width [mm]	25	2 x 25	1 x 50; 2 x 25
Max. core diameter [inches]	3	3	3



Bag sealer

tesa® 6094

- Professional bag sealer for medium- and large-sized bags
- Up to 5.0 kg weight
- Flag-style seal up to 19 mm width

tesa® 6256

- Professional bag sealer for small- and medium-sized bags
- Up to 3.0 kg weight
- Flag-style seal up to 12 mm width

	tesa® 6094	tesa® 6256
Weight [g]	1,350	720
Length/Width/Height [mm]	210/85/205	200/70/145
Max. roll diameter [mm]	170	135
Max. roll width [mm]	19	12
Max. core diameter [inches]	3	3



Classic hand dispensers

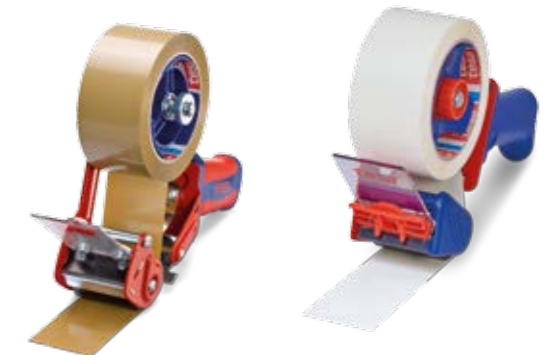
tesa® 6400 Comfort

- Professional hand dispenser for our packaging tapes
- Tension control, adjustable by hand
- Hidden blade (injury protection)
- Soft, gummed handle for a comfortable, secure grip

tesa® 6300 Economy

- Good value hand dispenser for professional application of our packaging tapes
- Tension control, adjustable by hand
- Covered blade

	tesa® 6400 Comfort	tesa® 6300 Economy
Weight [g]	610	350
Length/Width/Height [mm]	185/70/270	150/65/240
Max. roll diameter [mm]	130	120
Max. roll width [mm]	50	50 mm
Max. core diameter [inches]	3	3



Premium hand dispensers

tesa® 56402; tesa® 6005; tesa® 6075

- Very robust professional hand dispensers for our packaging tapes
- Tension control, adjustable by hand
- Hidden blade (injury protection)
- Two rubber contact rollers + trigger on the handle for cutting the tape
- Soft, gummed handle for a comfortable, secure grip

	tesa® 56402	tesa® 6005	tesa® 6075
Weight [g]	665	530	690
Length/Width/Height [mm]	205/65/205	220/45/210	210/90/210
Max. roll diameter [mm]	170	170	170
Max. roll width [mm]	50	25	75
Max. core diameter [inches]	3	3	3



For spare parts services, please contact:
 B&K Apparatebau Knecht GmbH
 Phone: +49 (0) 6774 1217
 dispenserservice@tesa.com

OUR TAPES FOR INNER PACKAGING



PVC backing

- Variety of colors allows all kinds of markings
- Robust PVC backing
- High adhesion
- Easy to remove from many surfaces

	tesa® 4104	tesa® 4204
Adhesive	Natural rubber	Natural rubber
Total thickness [µm]	67/65*	59/52*
Backing thickness [µm]	38/40*	37/32*
Adhesion to steel [N/cm]	3.6/2.3*	2.0
Tensile strength [N/cm]	60	50/45*
Elongation at break [%]	60	75
Color	●○●●● ●●●○	○●●●● ●●●●

* Dependent on color



PP backing

- Ideal for sales counter applications
- Good adhesion
- Ideal for use with all tesa tabletop dispensers

	tesa® 4205	tesa® 4204 PV5
Adhesive	Natural rubber	Acrylic
Total thickness [µm]	45	52
Backing thickness [µm]	28	32
Adhesion to steel [N/cm]	2.2	3.2
Tensile strength [N/cm]	43	50
Elongation at break [%]	145	150
Color	○	○

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.

Release layer on backing

The unwinding properties are dependent on this layer.

Backing

Provides tear & elongation characteristics.

- Polypropylene (BOPP)
- Polyvinylchloride (PVC)
- Paper

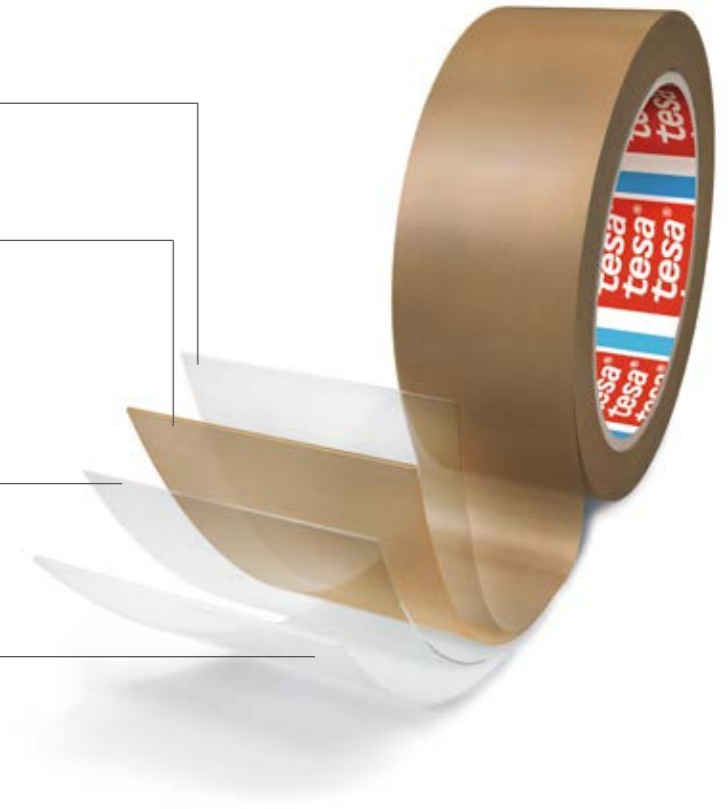
Primer

Responsible for anchorage of adhesive to backing material.

Adhesive

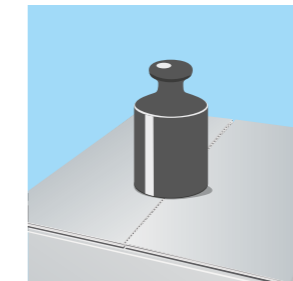
Its shear and adhesion properties are essential for carton closure performance.

- Synthetic rubber (hot-melt)
- Natural rubber
- Water-based acrylic

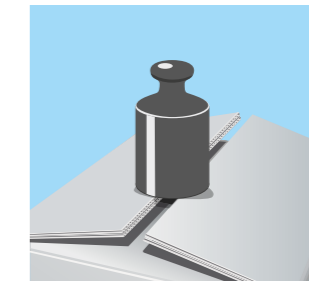


Which is the right carton?

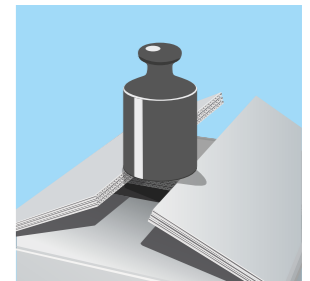
Corrugated Quality – the Differences
Different weights require different boxes made of different kinds of cardboard. Certainly lightweight and mid to heavy goods are better protected in a double flute or triple flute box, but hazardous goods should be packed in triple flute boxes, (Note: Certain provisions are mandated by regional law!) The following illustrations show the difference between the corrugated qualities:



< 20 kg single flute for normal light weights



< 40 kg double flute for mid to heavy loads



< 100 kg triple flute for extremely heavy loads

Different qualities – different flap pressures

Different cardboard qualities have different flap pressures. The pictures show, from left to right, single flute to triple flute cartons with a 2.0 kg weight on them. The higher the flap pressure, the greater the requirements of the tape.

Paper quality testliner

Testliner is always made entirely from recycled materials. This rough paper has only short fibers, thus making this box less stable when compared to kraftliner.

Kraftliner

Kraftliner is produced not only from recycled materials, but also from new materials, which contain long fibers. These provide optimal stability, but the cardboard is more expensive. You can easily identify the kind of liner by checking the color, as shown on the right. Paper made from wood is normally browner.



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