

Contributing to sustainability – Our packaging tape assortment

tesa

1

For a more sustainable future

We help your business to be more sustainable

Outstanding quality for crucial applications

Whether for a light or heavy carton, traveling a short distance by rail, or taking a long journey by ship – our range of pack-aging tapes meets all the requirements of modern logistics. They facilitate a fast packaging process, protect the shipment, and reinforce the carton closure. But that is not all: as one of the market leaders for packaging tapes, we are well aware of the big contribution that we can make to the environment when developing new products. And this is reflected in our new range of packaging tapes with sustainable aspects.

tesa – Your packaging tape partner

Secure packaging is the primary requirement to ensure a product reaches its destination intact. It provides protection from a variety of factors en route to the recipient. However, it is not only the cardboard box that is of significance – a huge range of other requirements are also placed on the adhesive tapes holding the box together.

tesa[®] packaging tapes are the result of decades of experience in the secure sealing of cartons. They have proven their worth millions of times over as a safe solution, under a huge range of different conditions, for the transportation of goods.

Why tapes will be vital in the future

The debate around packaging pollution has grown significantly in recent years. Increasing concern from regulatory bodies and from the public are currently leading to major changes – in both industrial and consumer packaging. Pack-aging tapes are also being discussed as a crucial part of the packaging solution, with calls for innovative solutions that better protect our environment growing louder.

We are not only focusing on becoming a more sustainable company but want to support our customers to become more sustainable as well. To do so, we have developed a set of packaging tapes that will support our customers in meeting their sustainability goals.

The following pages provide a detailed overview of the current assortment of packaging tapes with sustainable aspects and will help you find the right tape for your specific requirement.







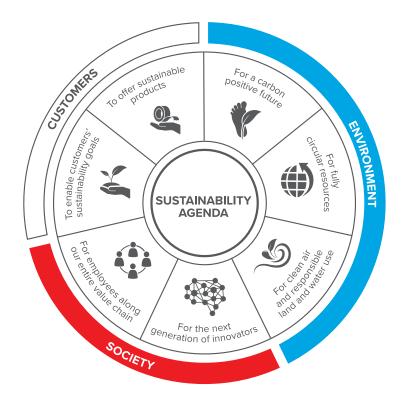
Sustainability Agenda

A compass for positive change

As a company, we are embedded in society and the environment.

There is no healthy economy without a healthy society and no healthy society without a healthy environment. We therefore take responsibility for our actions along our entire value chain and consider the entire product life cycle to reduce our footprint.

Based on this understanding, we have derived our Sustainability Agenda, which reflects our holistic view. It creates clarity and steers our efforts and investments in the most meaningful directions.



Our five strategic action areas with high impact

To meet our commitments, we have defined a set of goals and indicators aligned with our Sustainability Agenda. This also applies to packaging tapes.

01 Reduction of emissions 02

Responsible sourcing

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Use of recycled and bio-based materials

04

Circularity and reduction of waste

U5 Enable sustainability at our customers

and consumers

Want to know more?

To learn more about our Sustainability Agenda, visit our website: www.tesa.com/en/about-tesa/sustainability



Paper packaging tapes

tesa® 4713

Standard paper packaging tape

- Ideal for the sealing of cardboard boxes up to 10 kg
- Good adhesion on different cardboard qualities
- Can be torn by hand
- Suitable for manual and automatic dispensers
- · Printable with all types of ink systems

Our offer

- Paper backing made with paper from well-managed
- FSC[™]-certified forests and other controlled sources Recycling-friendly according to INGEDE method 12 (100/100)

Solvent-free production process

tesa® 4313 PV10 and PV12

Premium paper packaging tape

- Ideal for the sealing of cardboard boxes up to 20 kg
- Very strong adhesion and high initial tack
- Highly resistant to shock impacts
- Can be torn by hand
- Suitable for manual and automatic dispensers
- · Printable with all types of ink systems

Our offer

Paper backing made with paper from well-managed

FSC[™]-certified forests and other controlled sources Recycling-friendly according to INGEDE method 12 (83/100)

Solvent-free production process

tesa® 60013

Self-adhesive reinforced paper tape

- Suitable for heavy-duty packaging applications (>25 kg)
- Excellent adhesion and aggressive tack
- High tensile strength
- Paper backing reinforced with fiberglass scrim
- Tamper-evident seal when removing the tape
- Suitable for manual and automatic dispensers

Our offer

Recycling-friendly according to INGEDE method 12 (75/100)









| | tesa® 4713 | tesa® 4313 PV10 | tesa® 4313 PV12 | tesa [®] 60013 |
|-----------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-------------------------|
| Backing material | FSC [™] -certified paper | FSC [™] -certified paper | FSC [™] -certified paper | Paper |
| Total thickness [µm] | 125 | 107 | 125 | 200 |
| Backing thickness $[\mu m]$ | 94 | 95 | 95 | 165 |
| Type of adhesive | Natural rubber | Synthetic rubber | Synthetic rubber | Synthetic rubber |
| Adhesion to steel [N/cm] | 2.8 | 7.5 | 9.5 | >11 |
| Tensile strength [N/cm] | 30 | 60 | 60 | 125 |
| Elongation at break | 10% | 6% | 6% | 6% |
| Color | $\bigcirc igodot$ | $\bigcirc igodot$ | $\bigcirc igodot$ | • |





Decision matrix

| Carton weight | Technical conditions (transport and storage) | Recommendation | Specialties |
|----------------------|---|--|--------------------------------------|
| Light (max. 10 kg) | Standard 0–35°C | tesa® 4713 Standard paper packaging tape | |
| Medium (up to 20 kg) | Standard 0–35°C | tesa® 4313 PV10 Premium paper packaging tape | |
| High (over 20 kg) | Standard 0–35°C | tesa® 4313 PV12 Premium paper packaging tape | tesa® 60013 Reinforced paper tape |



Filmic packaging tapes

tesa® 60400

Bio & Strong

- Ideal for the sealing of cardboard boxes up to 30 kg
- Strong adhesion
- Robust backing material
- Solvent-free production process
- · Very good performance on recycled cardboards

Our offer

- Total bio-based carbon content of 98%
- Official certification from DIN CERTCO and TÜV AUSTRIA
- Solvent-free production process





tesa® 60412

Recycled PET packaging tape

- Ideal for the sealing of cardboard boxes up to 30 kg
- 70% Post-Consumer Recycled (PCR) PET content in backing
- A strong and very consistent acrylic adhesive
- Low-noise unwind
- · Very good performance on recycled cardboards
- Printable with all types of ink systems

Our offer

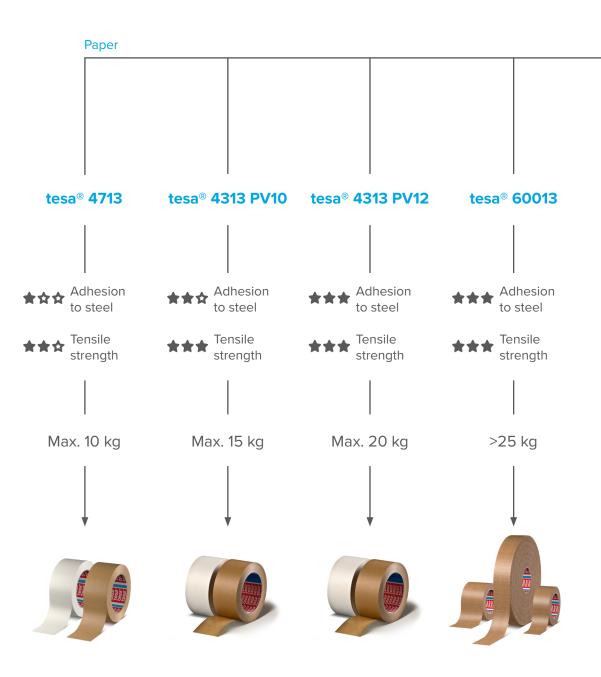
70% PCR PET content in backing

Recycling-friendly according to INGEDE method 12 (100/100)

| | tesa® 60400 | tesa® 60412 |
|--------------------------|-------------------|--------------------|
| Backing material | Polylactide (PLA) | PCR PET (70%) |
| Total thickness [µm] | 55 | 56 |
| Backing thickness [µm] | 30 | 36 |
| Type of adhesive | Natural rubber | Waterborne acrylic |
| Adhesion to steel [N/cm] | 3.5 | 3.0 |
| Tensile strength [N/cm] | 30 | 60 |
| Elongation at break | 185% | 130% |
| Color | \otimes | \otimes |



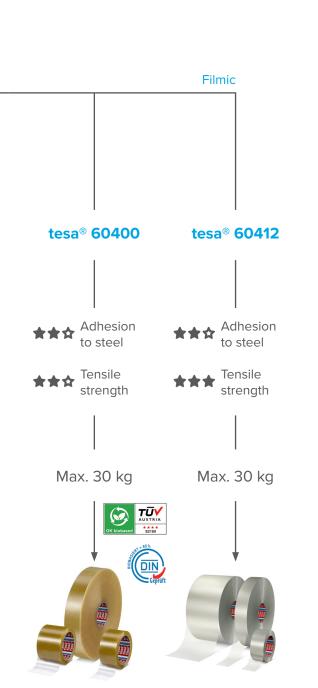
Overview on packaging tapes contributing to sustainability



Can't find the right solution?

If you have not found the right product, please contact us. Together we will find a suitable solution for you. **To learn more about our packaging tapes, visit our website:** www.tesa.com/en/industry/general-applications/packaging







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 stated above 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.







Our management system is certified according to the standards ISO 9001, ISO/TS 16949, ISO 14001, and ISO 50001.

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

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