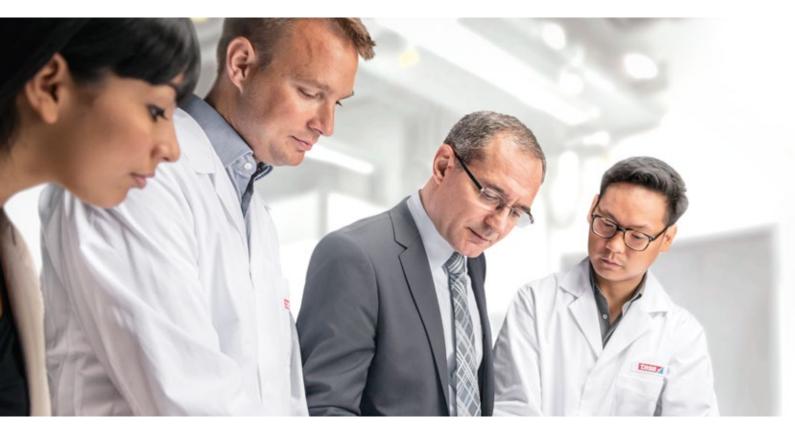


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• REPULPABLE TAPES FOR PAPER PRODUCTION EXCELLENCE

Reliable Partner for All Steps of the Paper Production Process

YOUR RELIABLE PARTNER



increasing

Our repulpable tapes for excellent paper production

Because of our self-adhesive repulpable tape solutions and expertise, we have been a partner for the paper industry for more than 40 years.

By creating tailored products as well as our tesa EasySplice® and tesa CaRes[®] product ranges, we can offer paper producers all over the world highly innovative and cost saving tape solutions allowing measurable improvements in every production step.



pigment in paper production generally proves a considerable challenge for repulpable tapes.

Calcium ions dissolve and migrate into the adhesive over time. As a consequence, the adhesive hardens, causing dramatically weaker bonding and an increase in mill splices breaking at the printer or paper converter.

Our tesa CaRes[®] tapes resolve this by offering a fully repulpable, calcium-resistant, and permanent adhesive. They keep their wellbalanced properties until the paper reel is processed by your customer.

Benefits of tesa CaRes®

- Reliable permanent splices on CaCO₃-coated paper
- No compromises on repulpability
- Well-balanced adhesive properties

tesa EasySplice[®] tapes for flying splice

| Product | Suitable for | Backing | Color | Total thickness [μm] | Opening force | Shear and heat resistance | Tack |
|-----------------|--|---------|-------|-------------------------|------------------|---------------------------|------|
| tesa® 51150 PV0 | High-speed coaters | Paper | Blue | 100 | High | •• | ••• |
| tesa® 51150 PV1 | High-speed coaters & sophisticated papers | Paper | Blue | 100 | Medium | •• | ••• |
| tesa® 51152 | Medium-speed coaters | Paper | Blue | 100 | Medium | •• | ••• |
| tesa® 51157 | High-speed coaters | Paper | Blue | 100 | High | ••• | ••• |
| tesa® 61152 | Medium-speed coaters | Paper | Blue | 100 | Medium | ••• | ••• |
| tesa® 61170 | Lower-speed splicing at winders & calenders | Paper | Blue | 80 | Low | ••• | • |

tesa[®] double-sided repulpable tapes

| Product | Suitable for | Backing | Color | Total thickness [µm] | Special features | Shear and heat resistance | Tack |
|----------------------------|---|--------------|---------------|-------------------------|--------------------|---------------------------|------|
| tesa® 51912 | Permanent splices of rough and heavy papers | Tissue paper | Blue | 90 | CaRes ³ | ••• | • |
| tesa® 51913 | Permanent splices of most paper grades | Tissue paper | Blue | 65 | CaRes ³ | ••• | • |
| tesa® 51917 | Flying splice or core starting of rough and heavy papers | Tissue paper | Blue or white | 120 | - | •• | ••• |
| tesa® 51914² | Flying splice or core starting of most paper grades | Tissue paper | Blue or white | 90 | _ | •• | ••• |
| tesa® 61914 ^{1,2} | Flying splice or core starting of thin papers | Tissue paper | Blue | 70 | - | •• | ••• |

tesa[®] double-sided repulpable tapes (specialties)

| Product | Suitable for | Backing | Color | Total thickness [μm] | Special features | Shear and heat resistance | Tack |
|-------------|---|------------------|-------|-------------------------|----------------------|---------------------------|------|
| tesa® 51915 | Robotic application (core starting, end tabbing, or static splicing) | None | Blue | 50 | Transfer tape | •• | ••• |
| tesa® 51916 | Robotic application (core starting, end tabbing, or static splicing) | None | Blue | 50 | Transfer tape | ••• | •• |
| tesa® 51190 | Core starting or end tabbing of most paper grades | Splittable paper | Blue | 130 | Low opening force | •• | •• |
| tesa® 51193 | Core starting or end tabbing of heavy papers | Splittable paper | Blue | 170 | High opening force | ••• | ••• |

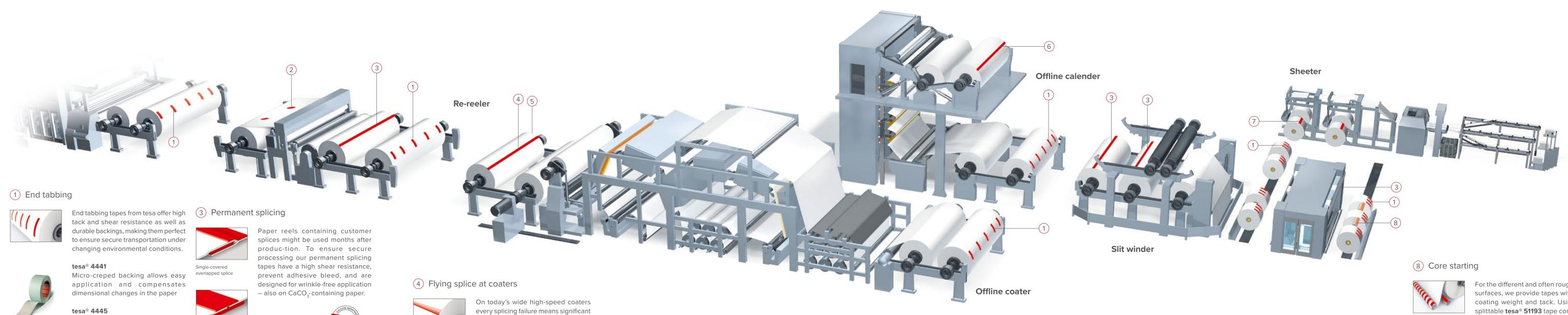
tesa® single-sided repulpable tapes for butt splicing

| Product | Suitable for | Backing | Color | Total thickness [µm] | Special features | Shear and heat resistance | Tack |
|-------------|--|---------|-------|-------------------------|---|---------------------------|------|
| tesa® 51465 | Easy application | Paper | Blue | 80 | Additional split- ting strip, CaRes ³ | ••• | • |
| tesa® 51455 | Easy application | Paper | Blue | 80 | Slitted liner, CaRes ³ | ••• | • |
| tesa® 61445 | Optical splice detection | Paper | Black | 80 | CaRes ³ | ••• | • |
| tesa® 51445 | Most paper grades | Paper | Blue | 80 | CaRes ³ | ••• | • |
| tesa® 51444 | Light paper grades or as cover tape | Paper | Blue | 50 | CaRes ³ | ••• | • |
| tesa® 4447 | Robotic application | Paper | Blue | 90 | No liner | ••• | • |

tesa[®] single-sided repulpable tapes for end tabbing

| Product | Suitable for | Backing | Color | Total thickness [μm] | Special features | Shear and heat resistance | Tack |
|-------------|-------------------|--------------|------------------------|-------------------------|------------------|---------------------------|------|
| tesa® 4441 | Most paper grades | Creped paper | Light blue or white | 140 | No liner | •• | •• |
| tesa® 4445 | Heavy papers | Paper | Light blue | 190 | No liner | •• | •• |
| tesa® 51446 | Light papers | Paper | Blue or white | 100 | No liner | •• | •• |

The results were obtained under laboratory conditions. All tesa® tapes mentioned above are repulpable according to TAPPI UM 213 A. ¹ Non-repulpable liner, ² Differential adhesive, ³ tesa CaRes® (Calcium Resistant) for best results also on paper containing CaCO₃



For heavy paper, demanding surfaces, and difficult storage conditions



tesa® **51446** For lightweight paper grades

No backing tesa® 51915 and **tesa® 51916** Tacky adhesive film, mainly for automatic end tabbing

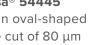
2 Hole patching



tesa® **5444**4 Very thin ovalshaped die cut of only 50 µm

tesa® 54445 Thin oval-shaped die cut of 80 µm







Overlapped splice



tesa® **51912** For heavy or rough paper

tesa® **51913** Very thin tape for reliable splices

Butt splice

tesa® **51445** The standard tape for manual butt splicing

tesa EasySplice[®] 51465 WinderLine Featuring a splitting strip and a slit liner easy application by hand

tesa® **51455**

Featuring a slit liner for application by hand

Possible cover tape is **tesa® 51444**



losses in efficiency and money. For more than 15 years tesa EasySplice[®] **Double-sided products for** stands for top splice reliability at the traditional patterns highest speeds as well as easy and time-saving preparation.

tesa EasySplice[®] products

tesa EasySplice[®] 51150 FastLine

For high splicing speed and wide webs, or

tesa EasySplice[®] 51157 FastLine Heat For very high drying temperatures

tesa EasySplice[®] 61152 CoaterLine Premium

For medium splicing speed and wide webs

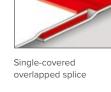
tesa EasySplice[®] 51152 CoaterLine

Single split strip-solution for narrow webs and medium splicing speed























tesa® 61914 Good tack and suitable for thin papers



tesa® **54287** and **tesa® 54216** Die cuts for top sheet fixina

5 Web feeding

For machine star-tup or in the event of a web break, the easy handling of tesa[®] 4445 or tesa[®] 4447 helps to obtain a quicker threading of the paper web.



Easy tearing of the web along the edge

tesa® 4445



tesa® 4447 No sliding of the web at very high temperatures

Our calender splicing tapes have an optimized ratio between thickness and coating weight to avoid adhesive bleed and machine damage, also when running through closed nips.

(6) Flying splice at calenders



tesa EasySplice® 61170 CalenderLine Low-thickness tape for high-pressured



nips and a splitting strip with smooth opening force





For the different and often rough core surfaces, we provide tapes with high coating weight and tack. Using the splittable **tesa® 51193** tape cores can be reused without cleaning.

Double-sided tapes

tesa® **51917** Highest coating weight and tack for rough cores

tesa® **51912** High coating weight for uneven cores

tesa® 51913 Secure web fixing on different cores

Special tapes

Splittable backing tesa® 51193 After splitting no sticky residues on the core

No backing **tesa® 51915** and tesa® 51916

Tacky adhesive film, mainly for automatic application core starting

7 Static splice

Our tapes for static splice such as tesa® 61914 feature high tack properties and adhesion combined with good shear strength.



For all paper grades

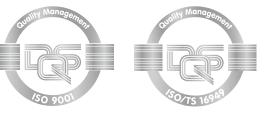


tesa® products prove their impressive quality day in, day out in demanding conditions and are regularly subjected to strict controls. All technical information and data above mentioned are provided to the best of our knowledge on the basis of our practical experience. They shall be considered as average 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.









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

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