



Adhesive experts
for powder-coating
applications

Discover our growing
powder-coating assortment

Challenging masking jobs in powder coating

Powder coating is a very demanding application that requires special masking tapes that can withstand high curing temperatures and are tear-resistant enough to be easily removed afterwards. The process is used to create a highly resistant and uniform finish as protection or decoration on metal surfaces.

In the first step, the free-flowing, dry powder is applied to the material electrostatically, so it is literally drawn into the tiniest gaps. In the second step, the coating is typically cured by heat, for example at 200°C. This causes the powder, which often contains a thermoplastic or thermoset polymer, to melt into a durable finish that is tougher than conventional paint. This exceptional resilience makes powder coating the preferred choice for metal working industries from household appliances to transportation and aerospace industries. In addition, powder coating does not release any volatile organic compounds (VOCs).

Our relaunched powder-coating assortment is designed for various applications with dwell times of up to 30 minutes. **tesa® 50650**, at 55 µm thickness, offers good conformability, while **tesa® 50600**, at 80 µm thickness, is highly tear-resistant. Both tapes are made from polyethylene (PET) with a 30 µm silicone adhesive, suitable for temperatures up to 220°C. **tesa® 4331**, with a PET/nonwoven laminate backing, provides even higher tear resistance and excellent paint adhesion at 110 µm thickness, with a temperature resistance of 200°C.

The new **tesa® 50620** Basic powder coating tape, at 70 µm thickness and a temperature resistance of 200°C, combines high tear resistance and tensile strength with residue-free removal. It is color-coded for easy identification and positioning, similar to **tesa® 50600** and **tesa® 50650**.



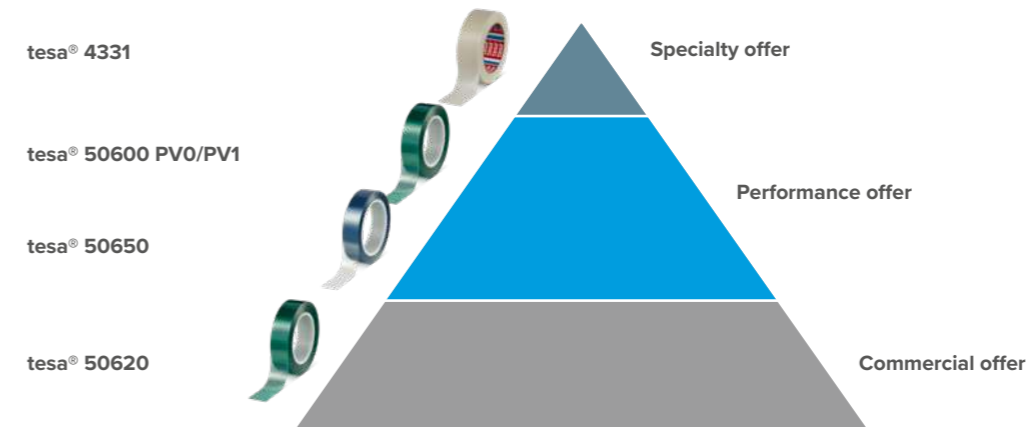
Benefits of our products

- A wide range to serve even the most demanding applications
- Stable and reliable quality that has been proven multiple times
- Technical customer service by experienced and highly skilled engineers

Solutions for elevated temperatures

Our high-temperature tapes featuring a heat-resistant backing with a silicone adhesive provide the perfect solution for demanding high-temperature applications such as masking during powder-coating, galvanizing, and wave-soldering processes as well as autoclave bonding operations during composite production or thermal insulation and cable-wrapping applications. Selection of an appropriate product depends on the to-be-bonded substrate, the employed materials in the process, as well as the temperature and duration of the application.

Powder-coating solutions



Auxiliaries

To enhance your powder-coating process, we've developed a range of specialized products designed to provide you with optimal support.

Recommendations:

- tesa® ACX^{plus} adhesive hooks
- tesa® 4414
- tesa® 60428
- tesa® 4848



In detail

Specialty offer	Product description and application	Technical information			
tesa® 4331 <ul style="list-style-type: none"> Extremely heat-resistant, withstanding extreme temperatures of up to 200°C for as long as 30 minutes at a time Residue-free removability for masking applications High adhesion for secure bonding, even adheres to surfaces containing silicone Masking during wave soldering, e.g. circuit board assembly 	Backing	PET / nonwoven	Tensile strength [N/cm]	53	
	Adhesive	Silicone	Elongation at break [%]	100	
	Total thickness [µm]	110	Color	○	
	Adhesion to steel [N/cm]	4.0	Temperature resistance (30 min) [°C]	200	
tesa® 50600 <ul style="list-style-type: none"> Applicable for versatile powder coating applications Can withstand temperatures of up to 220°C for 30 minutes Residue-free removability for masking and surface protection applications Easy application and easy one-piece removal Surface protection applications or bonding and splicing of nonpolar materials Enables sharp color edges and offers excellent paint anchorage 	Backing	PET	Tensile strength [N/cm]	75	
	Adhesive	Silicone	Elongation at break [%]	110	
	Total thickness [µm]	80	Color	⊗	
	Adhesion to steel [N/cm]	4.0	Temperature resistance (30 min) [°C]	220	
tesa® 50650 <ul style="list-style-type: none"> Ideally suited for masking off areas that are to be protected during powder-coating processes Can withstand temperatures of up to 220°C for 30 minutes Residue-free removability for masking and surface protection applications Good conformability, thin backing for sharp color edges Easy application and easy one-piece removal Enables sharp color edges and offers excellent paint anchorage 	Backing	PET	Tensile strength [N/cm]	50	
	Adhesive	Silicone	Elongation at break [%]	100	
	Total thickness [µm]	55	Color	⊗	
	Adhesion to steel [N/cm]	3.2	Temperature resistance (30 min) [°C]	220	

Commercial offer	Product description and application	Technical information			
tesa® 50620 <ul style="list-style-type: none"> Ideally suited for masking off areas that are to be protected during general powder coating applications Can withstand temperatures of up to 200°C for 30 minutes Residue-free removability for masking and surface protection applications Easy application and easy one-piece removal Surface protection applications Enables sharp color edges and offers good paint anchorage 	Backing	PET	Tensile strength [N/cm]	75	
	Adhesive	Silicone	Elongation at break [%]	110	
	Total thickness [µm]	70	Color	⊗	
	Adhesion to steel [N/cm]	3.6	Temperature resistance (30 min) [°C]	200	

Auxiliaries

Product description and application	Technical information			
tesa® ACX^{plus} adhesive hooks <ul style="list-style-type: none"> Easy hanging of components without the need for drilling holes or using screws High bond strength and shear resistance on metal substrates High resistance to temperatures up to 220°C Resistant to UV, moisture, and chemicals Easily removable after painting or coating 	Backing	Foamed acrylic	Normal tensile strength [N/cm²]	60
	Adhesive	Pure acrylic	Shear strength [N/cm²]	85
	Total thickness [µm]	500	Color	●
	Adhesion to steel [N/cm]	27	Short-/long-term temperature [°C]	220 / 120
tesa® 4414 <ul style="list-style-type: none"> Ideally suited for surface protection after coating or painting Excellent visibility due to blue translucent color The high-tack adhesive provides good and quick sticking to a wide range of surfaces Residue-free removal for up to 6 months even after continuous outdoor use Strong PE backing for good resistance against mechanical damage Easy to apply due to low backing elongation when unwound 	Backing	PE film	Tensile strength [N/cm²]	23
	Adhesive	Water-based acrylic	Elongation at break [%]	400
	Total thickness [µm]	150	Color	⊗
	Adhesion to steel [N/cm]	2.2	Temperature resistance (60 min) [°C]	70
tesa® 60428 <ul style="list-style-type: none"> Ideally suited for surface protection after coating or painting High mechanical and chemical resistance Wide range of masking requirements Easy to apply and residue-free removal Thin and conformable Suitable for converting and die cutting UV resistant for 3 months 	Backing	PVC film	Tensile strength [N/cm²]	43
	Adhesive	Natural rubber	Elongation at break [%]	78
	Total thickness [µm]	60	Color	●
	Adhesion to steel [N/cm]	0.3	UV resistance (month)	3
tesa® 4848 <ul style="list-style-type: none"> Ideally suited for surface protection after coating or painting Thin and transparent film UV resistance allows outdoor use Sensitive adhesive with low bonding strength Very versatile in terms of surfaces that can be protected Easy, residue-free removal within four weeks of application, even after UV exposure during outdoor usage 	Backing	PE film	Tensile strength [N/cm²]	12
	Adhesive	Acrylic	Elongation at break [%]	200
	Total thickness [µm]	48	Color	○
	Adhesion to steel [N/cm]	0.8	UV resistance (weeks)	4

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 masking tapes, visit our website: www.tesa.com/en/industry/general-applications/masking

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.



Certifications

Our company is focused on international quality, environmental, and occupational safety standards.

Please find more information regarding our certifications at:
www.tesa.com/certifications

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