tesa® PROFESSIONAL

PRACTICAL TIPS

Useful tips & tricks for professional painting, decorating and facade work

tesa.co.uk/craftsmen

ONE THING COUNTS ABOVE ALL ELSE: A PERFECT RESULT

Painting professionals know the importance of precision. Precise and efficient work guarantees customer satisfaction and consequently repeat orders – it also saves having to carry out time-consuming rework.

Perfect craftsmanship, however, can only be achieved with material that performs flawlessly even under the most difficult conditions. A material of the best quality that you as a professional can rely on at all times. With this in mind, we provide you with professional adhesive solutions for all painting, decorating and facade work. This brochure contains suggestions on how to benefit from the individual strengths of our products in a practical and efficient way.

The tesa® practical tips provide you with advice for your daily work that will save you a lot of time and stress. This brochure explains all you need to know about professional masking with adhesive tapes.

For perfect results every time!

Your

tesa Professional Team

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APPLICATION

Every job is different: With the right expertise you can find the most appropriate solution for any application.

APPLICATION

Perfect application begins with material selection. What substrate are we dealing with? What is the application time of the adhesive solution? What does it have to withstand mechanically or in terms of weathering? Use our comprehensive processing checklist to find the optimal adhesive solution for each and every job! In addition, we highlight common application errors that can be easily avoided with a few technical tricks. More information can be found on the following pages.

APPLICATION

THE 4-POINT CHECKLIST FOR PERFECT RESULTS

The requirements for adhesive solutions differ hugely in the painting and decorating trade. When plastering outdoors, for example, adhesives are needed for several weeks – in contrast, just a few days' protection is sufficient for painting indoors.

There is no such thing as an adhesive tape that meets all requirements. So special adhesive solutions have been developed for specific applications. These are perfectly tailored to the application and simply perform better than a low-cost universal adhesive tape. The added value is that unnecessary complaints and tedious reworking are avoided.

These four basic points should be considered in order to achieve perfect results every time.

1. THE RIGHT CHOICE

Indoors or outdoors
Adhesive tapes for outdoor use have to be particularly resilient. They must be weatherproof and capable of withstanding UV radiation and moisture. That's the only way the tape can be removed later without leaving any adhesive residue and without constantly tearing. Indoor adhesive tapes should only therefore be used indoors.

The substrate
Smooth, rough, structured? The coarser the substrate, the stronger (and also thicker) the adhesive compound layer should be in order to adhere reliably. Regardless of whether the adhesive is to be applied to wood, metal, silicone or plaster: The strength of the substrate should always be greater than the adhesive strength of the tape. Otherwise, damage will inevitably occur during removal.

Duration of use
Almost every adhesive tape adheres more and more strongly over time. The maximum application time is individually limited to ensure problem-free removal. If these times are exceeded, the risk of residues during removal increases significantly. Damage to the substrate can also increase as a result.

Demand for precision
What is the customer's quality requirement? And what are your own expectations? A product from the standard range may be sufficient for simple masking when painting walls – but if, for example, sharply separated painting with several colours is required, then the tesa® Precision masking range provides maximum performance.

The mechanical requirement
How strong should the tape be? Mechanical loading is usually low in general work. The situation is somewhat different when filling joints - and even more so when plastering: Paper tape is not enough in this case; adhesive products are needed that do not fail immediately when they come into contact with trowel and mortar. Our plaster and cloth tapes are the perfect solution for such applications.

PROFESSIONAL TIP

The application time is indicated on all tesa® product labels to ensure perfect results.

2. CORRECT APPLICATION

Cleanliness
Clean surfaces = secure adhesion! Adhesives will only hold reliably if the bonding surface is free of dirt. If surfaces are contaminated with dust, moisture, oil, silicone or wax, the adhesive layer cannot develop its full strength. For the simple reason that dirt particles significantly reduce the actual adhesive contact.

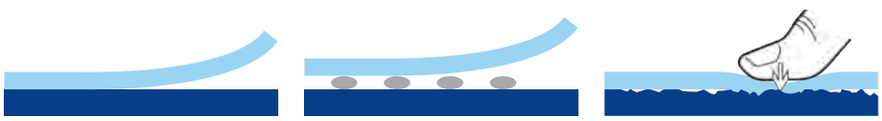
Temperature
Adhesive tapes work ideally in a temperature range from 5 °C to 40 °C. If it is colder, they adhere much less, and at the same time excessive force is required to unroll them. Peeling is also more difficult at lower temperatures, as the backing material and the adhesive compound become brittle. The good is that the tape is able to withstand lower or higher temperatures while it is adhering.

PROFESSIONAL TIP

Stays cool down to freezing point: tesa® 4843 Winter Plastering Tape can also be used down to 0 °C.

PROFESSIONAL TIP

Pressing firmly ensures a secure bond. Exception: unstable surfaces such as paper wallpaper, where too much pressure increases the risk of tears.



Clean surface – good adhesion

Dirty surface – less adhesive contact

Important: press firmly

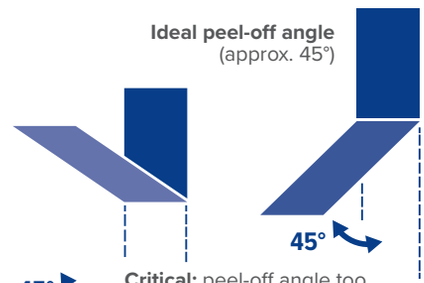
3. THE RIGHT REMOVAL

The perfect angle
In order to avoid residues on removal, the adhesive tape should always be removed at an acute angle. An angle of 45° has proven to be the most suitable – a larger angle increases the risk of adhesive compound remaining on the surface.

Speed
The motto here is: Slowly is quicker! Remove the adhesive tape slowly and evenly if you want to save time. This prevents adhesive residue – and also effectively avoids annoying tearing.

Temperature
Both the backing material and the adhesive compound of a tape slowly become brittle at surface temperatures below 5 °C. This makes application harder: The tendency of the tape to tear increases, and with it the risk of residues.

Timing
The tape should be removed after the paint has dried. This is how to achieve particularly sharp paint edges. It is not recommended removing the tape too soon after painting – or removing it too late after the paint has completely dried.



Critical: peel-off angle too large. Risk of adhesive residues

PROFESSIONAL TIP

The first 10-20 minutes after applying the coating are particularly critical for removal.

4. THE RIGHT STORAGE

Maintain quality
Damaged tape edges often lead to tears or blurred paint edges. With appropriate storage (at room temperature and low humidity), the quality of adhesive tapes is maintained for a long time – and storage damage is effectively prevented. Adhesive tapes should always be stored lying on the roll core (flat surfaces). Adhesive tapes should also be well protected from intense sunlight.

Storage temperature
Adhesive tapes must be protected from extreme temperatures. They age much faster when exposed to heat. Particularly behind windscreens, temperatures of up to 60 °C can develop on hot summer days. This damages the adhesive and leads to residues remaining when the tape is removed. Adhesive tapes that are too cold are also problematic – they no longer adhere sufficiently to cold surfaces.

Storage period
If the maximum storage period is exceeded, there is no longer any guarantee that an adhesive tape will protect the substrate. The risk of damage to the taped surfaces increases greatly due to overlapping – and with it the risk of rework.

PROFESSIONALS PREFER TO PLAY IT SAFE

Time and time again, the wrong, unsuitable or defective tapes are used for masking. There are many reasons for this: tight timing, increasing cost pressure or simply the wrong storage of the materials.

What initially seems to save time and money quickly turns into a major problem where there is a risk of secondary damage such as paint cracking, colour changes, wall and wood cracks, adhesive residue, paint peeling or running.

Paint cracks Peeling
Adhesive residue
Paint runs
Stripped wall paint Stripped wood finish
Colour changes

COMMON PROBLEMS

Unnecessary extra work
One thing is clear: adhesive tapes should reliably protect surfaces. However, the exact opposite can occur if the tape is used incorrectly or inadequately: Adhesive tapes that are not used for their intended purpose can result in damage and complaints.

Consequences of “incorrect masking”:
- Paint cracks
- Peeling
- Tape tearing
- Paint runs
- Wall and wood cracks
- Adhesive residue
- Colour changes
- Tape splitting

Typical causes
The increasing cost pressure in the painting trade is often the reason for inadequate adhesive solutions. A lack of product information or too tight schedules often lead to "more bad than good" masking. Sometimes it's minor application errors that quickly add up and cause major problems.

PROFESSIONAL TIP

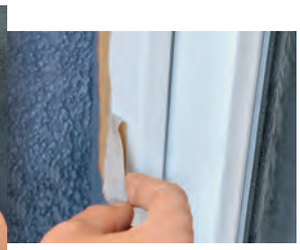
Expertise is a valuable asset: With the right products, you save yourself unnecessary damage and extra work.

Despite all the application tips in this brochure, we also recommend that you take your own precautions. The increasing number of possible applications and materials used is simply too great. Once again: be smart and avoid damage!

SIMPLE SOLUTIONS

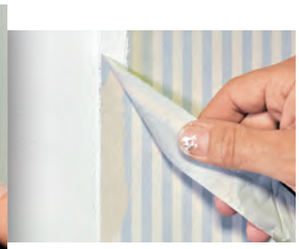
Professional masking
The perfect adhesive solution is always determined by the substrate – and not the other way around. Even the most difficult substrates can be mastered with professional masking and covering. The tried-and-tested tesa® range offers suitable solutions.


Structured surfaces
Standard masking tapes can quickly lead to unsightly paint runs, as the tape does not adhere well enough.
Solution: Tapes made of extra thin special paper (tesa Precision Mask®) – particularly in combination with "counter-coating" (more on this on page 35).

Masking facades
After a longer period of time outdoors, simple paper masking tapes repeatedly tear when removed and leave behind adhesive residues: Removal takes an unnecessarily long time.
Solution: Robust UV- and weather-resistant paper adhesive tapes can be easily removed after the facade has been painted.

Delicate wallpaper
Certain wallpapers have an extremely sensitive decorative layer that tears very easily. Their minimal resistance to splitting requires a special adhesive tape.
Solution: Particularly light adhesive tapes made of special paper (tesa Precision Mask® Sensitive 4333) safely protect sensitive substrates without damaging them when they are removed.

Masking on plaster
Common paper adhesive tapes can be easily damaged during plastering work, cannot withstand the material thickness of the plaster and tear repeatedly due to "rough treatment".
Solution: Specially developed plaster tapes provide reliable protection and can be easily removed without tearing even after damage.


Masking curves
Curves cannot be covered very easily and precisely with standard masking tapes. And the repeated cutting-up of pieces is anything but efficient.
Solution: A highly creped paper tape (tesa® 4319 Curve masking tape) enable curves to be masked off in just one piece. It can even be used to mask off narrow radii.


tesa® PROFESSIONAL

SUBSTRATES: INDOOR WORK

How strong is strong enough? Optimum adhesive strength is important in order to meet the requirements of any substrate.

SUBSTRATES

There is a wide range of indoor substrates. Some surfaces require strong adhesion when masking, others require caution. What should be considered for wood with older glazes? How do you handle sensitive wallpaper or sensitive polished plaster? And how can extra-sharp paint edges be achieved on structured surfaces? We provide solutions to the most common practical problems.

MASKING INDOORS:
WALLPAPER, POLISHED PLASTER, STUCCO

Sensitive surfaces such as stucco profiles, wallpaper, polished plaster, smoothed walls, perforated acoustic panels or plasterboard require special adhesive tapes with a low, finely controlled adhesive strength. Only then can the adhesions be removed again later without damaging the substrate.

Less is more
tesa Precision Mask® 4333 Sensitive is a particularly low-tack adhesive tape that can be used to mask sensitive substrates reliably, securely and precisely. It is particularly suitable for sensitive, smooth substrates such as decorative and photo wallpaper, fresh paint, varnishes or seals.

Rough surfaces
For rough surfaces, we recommend the slightly stronger adhering tesa Precision Mask® 4334 PLUS. When masking on rough surfaces with tesa Precision Mask® 4333 Sensitive, it is necessary to “counter-coat” to avoid paint runs.

tesa® Precision Mask® 4333 Sensitive and tesa Precision Mask® 4334 PLUS – used for decorative wall coverings

tesa Precision Mask® 4333 Sensitive

For sensitive, smooth surfaces
- Constant, light adhesion
- Thin and particularly tear-resistant
- Removable residue-free and without damage

tesa Precision Mask® 4334 PLUS

For all painting and decorating work with an extra sharp paint edge
- Particularly tear-resistant and repositionable
- Can be used indoors for 6 months and outdoors for 8 weeks
- Easy, quick and secure application
- Residue-free removal

PROFESSIONAL TIP

Go to page 35 for more information on extra sharp paint and varnish edges on structured surfaces.

PROBLEMS & SOLUTIONS when masking wallpaper and wall coatings

Problem	Cause	Solution
Damage to untreated drywall	Insufficient strength of the plasterboard sheathing	Recommendation: tesa Precision Mask® 4333 Sensitive, Prime Drywall or Plasterboard
Cracks in the coating, e.g. with emulsion paint	The use of adhesive tape that is too strong on a surface with insufficient strength	Use lightly adhesive tapes: - Highly sensitive: tesa Precision Mask® 4333 Sensitive - Sensitive: tesa Precision Mask® 4334 PLUS
Streak formation with plastic-coated filler application	With fillers that are not purely mineral (dispersion fillers), the risk of streaking increases as the proportion of polymeric binder increases	Only use lightly adhesive tape (tesa Precision Mask® 4333 Sensitive) if absolutely necessary, for a short time and in the outer edge area

MASKING INDOORS:
WOOD, PAINT, VARNISHES

Wood with older varnishes or paint can be problematic when masking. The adhesive strength of the tapes should be chosen carefully. The reason: The coatings often no longer adhere as strongly to the wood – the substrate would inevitably be damaged if tapes that were too strong were to be removed.

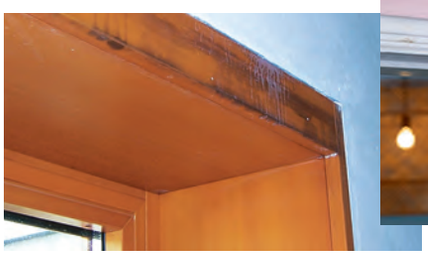
The happy medium
Adhesive tapes with medium adhesive strength are ideal for masking varnished and painted wood surfaces. The tesa Precision Mask® 4334 PLUS, for example, enables convenient and damage-free removal indoors, even after 6 months of adhesion (8 weeks outdoors).

PROFESSIONAL TIP

Slowly peel off self-adhesive masking tapes at an angle of 45° to achieve the best results.

Beware moisture
When masking large areas of wood, there is a risk of damage from accumulated moisture. Condensation can be avoided by means of a loose overlap – this ensures ventilation. Please also note the information from page 28 onwards.

Damage to older varnishes/paint due to excessive adhesion



Although the door was masked off, water penetrated the door frame and was unable to dry out

For older painted wood surfaces, we recommend tesa Precision Mask® Sensitive 4333

GOOD TO KNOW

Mask well: Wood surfaces can be easily damaged, particularly during extensive work. For this reason, it is recommended that, when removing wallpaper, washing off old coatings or felting walls, the adjacent wood surfaces should be well protected, for example with multi-layer masking (UV-Extra Plaster and Building Protection Tape 4370 on Precision Mask® 4334).

tesa Easy Cover® 4365 Precision

- Combination of translucent, supple film and tesa Precision Mask® 4334 PLUS
- Flat, sharp paint and varnish edges
- Can be used indoors for 6 months and outdoors for 8 weeks

PROBLEMS & SOLUTIONS when masking older varnished wood surfaces

Problem	Cause	Solution
Splitting in the old coating when removing the adhesive tape	Adhesive strength of the masking tape is too strong, the old coating is not strong enough	Use light to medium-strength adhesive masking tapes. Recommendation: tesa Precision Mask® 4333 or 4334
Moisture accumulation when covering the entire surface of wooden windows with film	Airtight closure promotes the formation of condensation	Masking with loose overlap or tilting the window before masking to allow ventilation
Damage to the sensitive coating of the wood surface	"Rough" work such as sanding, washing down or removing wallpaper	Robust multi-layer masking: first tesa Precision Mask® 4333 Sensitive, then tesa® Building Protection Tape 4370 UV Extra

MASKING INDOORS:
UV VARNISHES, IMITATION WOOD

UV-hardened coatings are often found on finished parquet, skirting boards, doors or furniture. Many of these are problematic when masking because they are not firmly bonded to the substrate. Using masking tapes that have a strong adhesive strength therefore entails a risk of damage.

The right strength
Masking tapes with a light to medium adhesive strength (tesa Precision Mask® 4333 Sensitive or tesa Precision Mask® 4334 PLUS) are ideal for smooth surfaces with hardened coating.

PROFESSIONAL TIP

If possible, parquet surfaces should not be taped in the tread area (more on this on the next page).

Sensitive: wood effect
Skirting boards and similar products are often coated with a wood effect. When wet, this thin paper layer can easily detach from the substrate as soon as the masking tape is removed. It is recommended to wait until the applied paint is completely dry before removing the tape. Masking tapes with gentle adhesion are even safer (e.g. tesa Precision Mask® 4333 Sensitive).

Stripping of the imitation wood; high risk with standard masking tape if removed when wet. No damage with tesa Precision Mask® 4333 Sensitive

Paint peeling off on UV-hardened ready-made parquet due to masking tape adhering too strongly

GOOD TO KNOW

When in doubt, less: If you are unsure about the nature of a substrate a more gentle adhesive tape is the best choice. Keep UV paints, wood effects and other sensitive surfaces safe with tesa Precision Mask® 4333 Sensitive. It is essential to carry out a trial application on an inconspicuous area!

tesa Precision Mask® 4333 Sensitive

For sensitive, smooth surfaces
- Constant, light adhesion
- Thin and particularly tear-resistant
- Removable residue-free and without damage

PROBLEMS & SOLUTIONS when masking UV coatings and imitation wood

Problem	Cause	Solution
Paint cracks on parquet and skirting boards	Adhesive tape pulled off with a jerk or tape used that was too adhesive	Remove tape slowly, ideally at a 45° angle
Splitting on the painted door frame	Adhesive tape too strong	Use a lighter adhesive masking tape, e.g. tesa Precision Mask® 4333 Sensitive
Tears in wood effect paper	Paper not strong enough due to moisture after painting	Only remove the masking tape when the paint is dry, or alternatively use tesa Precision Mask® 4333 Sensitive

MASKING INDOORS:
LARGE AREA MASKING

Secure masking of floor coverings, stairs, wall surfaces, windows or furniture can be costly in terms of time and stress. Nevertheless, no compromises should be made here. With the right material, even larger areas can be reliably protected quickly and easily.

Smart 2-in-1 solution
The combination of masking film or paper and masking tape is particularly time-saving. With tesa Easy Cover®, masking and covering can be achieved conveniently in a single step. The welcome "side effect" is the extra sharp paint edges thanks to the tried-and-tested tesa Precision Mask®.

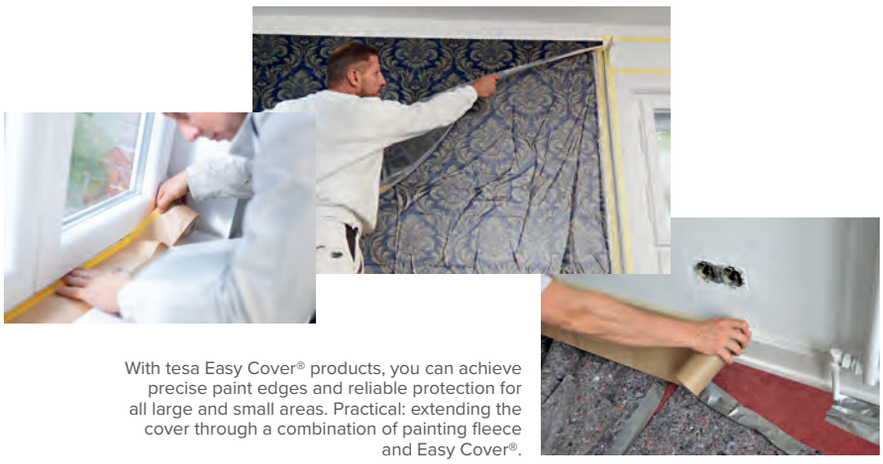
PROFESSIONAL TIP

tesa Easy Cover® can also be easily combined with painting fleece to cover large areas.

Open stairs: Only use adhesive tape to “strap” around the cover

GOOD TO KNOW

Adhesive-free zone: If possible, surfaces in the walking area should not be masked off. The strength of the bond increases continuously as a result of repeated footfall: There is an increased risk of adhesive residue or unattractive stripping when removing the tape. The best option is: Attach painting fleece or films to each other and adhere to skirting boards or similar.



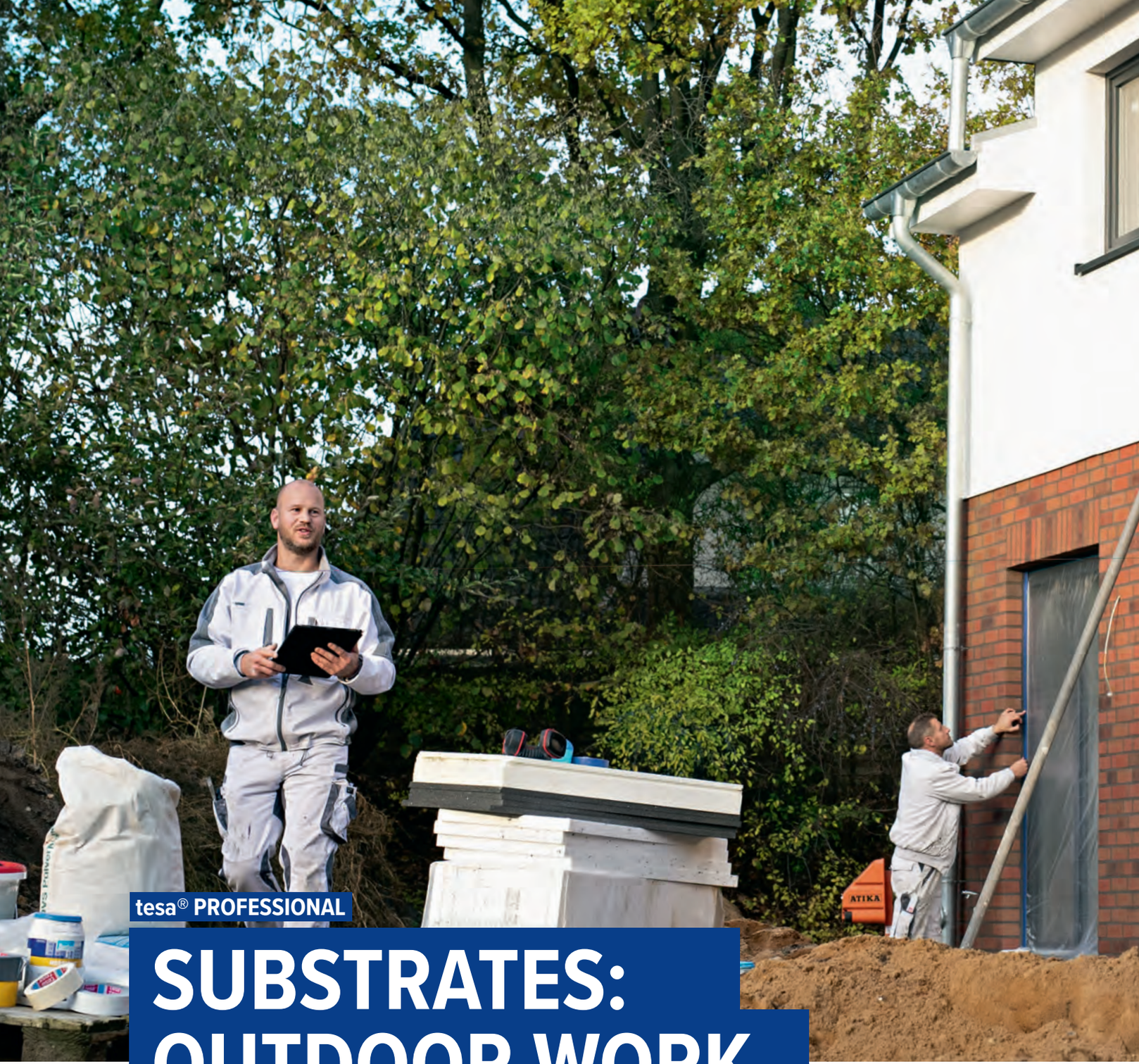
With tesa Easy Cover® products, you can achieve precise paint edges and reliable protection for all large and small areas. Practical: extending the cover through a combination of painting fleece and Easy Cover®.

Strong resilience
Construction sites are not exactly delicate places: so care must be taken with every masking job to ensure that it provides reliable protection under all working conditions. A professional covering should be able to withstand point loads caused by rolling scaffolding as well as any sanding, plastering or filling work.

The **tesa Easy Cover® range** always offers the right solution, especially for the different applications and areas of use in large-scale protection. A practical overview can be found on page 37.

PROBLEMS & SOLUTIONS when masking larger areas

Problem	Cause	Solution
Adhesive residues on natural stone steps	Adhesive applied directly to the microporous stone surface	Do not apply directly to stone surfaces, but attach the masking in the adjacent area
Paint cracks and adhesive residues on open wooden stair treads	Masking tapes applied directly to step surfaces, adhesion reinforced by being stepped on	Only use adhesive tape to “strap” around the cover, avoid direct contact with the step
Repeated cracks in the covering	Insufficiently robust material used for the cover material	Use a more resistant cover, recommendation: Painting fleece



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SUBSTRATES: OUTDOOR WORK

You can't choose your weather.
But you can choose the most suitable adhesive solution for outdoors.

SUBSTRATES

In outdoor areas, it is not only the weather that plays a major role in masking. UV radiation affects adhesive tapes just as much as the weather. This makes it all the more important to carefully select the materials. What should be considered with older wood varnishes, and what should be considered with chalky plastic windows? How can large areas on facades be ideally masked in just a few simple steps? See for yourself!

MASKING OUTDOORS:
FACADE MASKING WORK

Adhesive tapes have particular requirements for renovation work on facades. On the one hand, they have to withstand wind and weather – on the other hand, they should be able to tolerate thicker layers of paint or chemically aggressive paints. Inexpensive tapes quickly reach their limits at 35 °C in the shade or with strongly alkaline paints.

Strong resilience
Adhesive tapes for outdoor use must be far more tear-resistant and robust than products for indoor use – above all, they must be UV-stable. Often on construction sites, you see that indoor masking tapes are also used outdoors. This is an error with consequences: When removing the tape, there is a risk of discolouration, damage, adhesive residue, or tearing and splitting of the tape.
For coverings that need to remain in places for a few hours, only products that are suitable for the outdoor use should be used.

For all types of facade
As with adhesive tapes for indoor use, there are also different surfaces for outdoor use, each of which places special demands on professional taping. We introduce them in more detail in the following pages.

PROFESSIONAL TIP

Practical info: Small pictograms on tesa® products indicate, for example, the maximum adhesion time for outdoor use.

When working outdoors on a facade, windows and parts of the facade need to be covered. The adhesive is often required to last for days and weeks - and then be removable again quickly and without residue

tesa Precision Mask® 4440 Outdoor UV PLUS can be removed without leaving any residue even after 6 months

Simple masking tapes often tear and take unnecessary time to remove

GOOD TO KNOW

Multi-layer masking: If sensitive surfaces are to be protected, double masking is recommended: Simply apply a tape with a low adhesive strength first (e.g. tesa Precision Mask® 4333 Sensitive), then the "weatherproof" masking (e.g. tesa® Easy Cover® 4373 UV Extra Strong).

The **tesa Easy Cover® range** offers proven adhesive solutions for large-scale protection around outdoor areas. Please find out more about the applications and the specific duration of use from page 28 onwards.

PROBLEMS & SOLUTIONS when masking facade surfaces

Problem	Cause	Solution
Adhesive tape is difficult to remove, adhesive residues	The adhesive strength has "increased" under the influence of the weather	Use weatherproof, stable adhesive tape: e.g. tesa Precision Mask® 4440 Outdoor UV PLUS
Masking tape tears when pulled off	Simple paper tape is not strong enough for outdoor use	Use tear-resistant, stable adhesive tape: e.g. tesa Precision Mask® 4440 Outdoor UV PLUS
Adhesive tape is difficult to remove and keeps tearing	The thicker layer of paint on facades makes it difficult to remove	Use strong, professional tape: e.g. tesa Precision Mask® 4440 Outdoor UV PLUS

MASKING OUTDOORS:
WOOD, PAINTS, VARNISHES

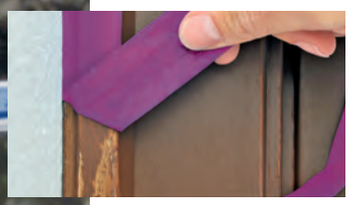
Outdoor wooden surfaces are often heavily weathered and have old coatings that do not adhere well. Masking is problematic here, because even with very low adhesive forces you have to expect cracks when you remove the tape. For this reason, check the strength of the surface before masking.

PROFESSIONAL TIP

With untreated raw wood, the fibres can tear when the masking tape is removed.

Determine adhesive strength
The use of special masking tapes minimises the risk of substrate damage: tesa Precision Mask® 4440 Exterior UV PLUS has proven its effectiveness with its balance between adhesive strength and removability.

Paint cracks with an acrylic paint that has not dried through



Stripped varnish due to the use of a tape that is too adhesive

Damaged wood after plaster application.
Reason: Masking with insufficiently strong film

GOOD TO KNOW

Too soft for outdoors: In addition to weather influences and strong UV radiation, adhesive tapes used outdoors must also be suitable for strongly alkaline paints and varnishes. So only use products here that were also designed for outdoor use: Otherwise there is a risk of adhesive residues and surface damage.

tesa Precision Mask® 4440 Outdoor UV PLUS

For sharp paint and varnish edges
- Tear-resistant, thin special paper
- Supple and reliable
- 6 months' UV resistance

PROBLEMS & SOLUTIONS when masking wood, paint and varnish

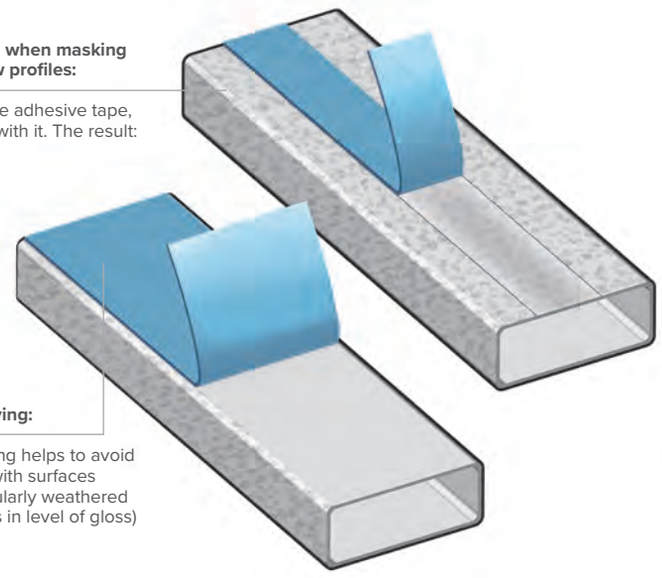
Problem	Cause	Solution
Paint cracks on wooden door frames	Too strong adhesive tape used	Use tape with medium adhesion e.g. tesa Precision Mask® 4440 Outdoor UV PLUS
Paint cracks on wooden windows	New coat of paint not completely dry yet	Allow paintwork to dry completely in accordance with manufacturer's instructions
Paint cracks on wooden blinds	Hidden defects in the substrate	Preliminary inspection of the substrate: more information on this on page 32

MASKING OUTDOORS:
PLASTIC WINDOWS, PVC

New or well-maintained PVC windows can often be masked without any problems. However, weathered PVC surfaces can be problematic. They become porous – and adhesive tapes do not have enough grip on the chalky surface. Such surfaces are often also heavily soiled.

Possible damage
Various damage can occur on weathered PVC window frames: Changes in degree of gloss, adhesive residues, light-dark effects or discolouration, some of which only appear some time after removal. Thorough cleaning before masking often helps.

Particularly problematic
A major cause of severe weathering is UV radiation. Windows that face south and southwest are therefore often particularly problematic. The same applies to window profiles that are more than five years old. Dull, chalky surfaces are often encountered here, which do not provide sufficient hold if left untreated.



Common problem when masking older PVC window profiles:

When removing the adhesive tape, dirt is "ripped off" with it. The result: Light-dark effects

Easy problem solving:

Full-surface masking helps to avoid "streaking". Even with surfaces that are not particularly weathered (keyword: changes in level of gloss)

Polish the damage
The adhesive residues on PVC window frames can be effectively removed by polishing.

PROFESSIONAL TIP

In the case of plastic frames with insulating glass, the age of the glass is often indicated in the space between the panes.

Information on year of manufacture on glass pane spacer (17.7.2008)

GOOD TO KNOW

Before masking: Before costly complaints arise, it is advisable to briefly examine the plastics to be masked and to point out potential problems to the customer. In the case of severe weathering, you can recommend professional system care. It is best to mask off problematic plastic profiles over the full width (adhesive tape with medium adhesive strength, e.g. tesa Precision Mask® 4440 Outdoor UV PLUS).

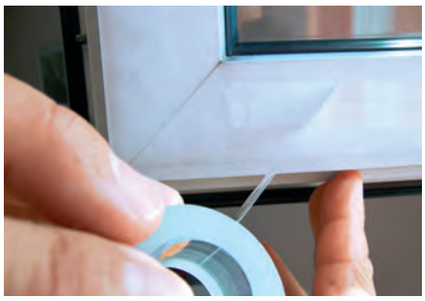
PROBLEMS & SOLUTIONS when masking plastic surfaces

Problem	Cause	Solution
Adhesive tape difficult to remove, constant tearing	Adhesion too high on weathered, porous PVC plastic	Use adhesive tape with medium adhesion, e.g. tesa Precision Mask® 4440 Outdoor UV PLUS.
Light-dark effect or differences in gloss level	Plastic flaking off during removal due to weathering	Thoroughly clean the surface beforehand and mask-off completely
Yellowish-brown discolouration	Adhesive's aging agent	Never use standard masking tape! Stay calm if damage occurs. Discolouration can disappear again by means of the sun

MASKING OUTDOORS:
SURFACE INSPECTION HELPS

Tearing off a strip of transparent tesafilm® quickly clarifies the condition of substrates.
White residue on the torn-off adhesive strip indicates chalking, weathered surfaces.

1. Press tesafilm® firmly



2. Sharply pull off tesafilm®

3. Check tesafilm® for residues

HOW DO I TELL THE CUSTOMER?

Point out damage
Most customers do not know that a lack of window cleaning and window care prevents reliable masking. It therefore makes sense to specifically point this out to them before starting work.

Offer system maintenance
Thorough cleaning can significantly improve the condition of weathered surfaces and consequently prevent subsequent complaints. This is supported by the following argumentation.

Here are three tips on how to proceed:
- Carry out the adhesive tape tear-off test in the presence of the customer
- Short test clean with special cleaner*
- Offer professional system maintenance

PROFESSIONAL TIP

Play it safe with a preliminary inspection: Always test the special cleaner at an inconspicuous spot.

***Important:** Do not use PVC-dissolving cleaners such as nitro thinner or acetone! Only use suitable cleaning products from specialist retailers or directly from the window manufacturer.

Dear Customer,

To ensure that windows and doors do not become soiled when the facade is painted, we need to mask them off carefully. During the property inspection, we found that the plastic surfaces are weathered.

The causes of this include UV radiation from sunlight and environmental influences (e.g. ozone, air pollution). We cannot apply professional masking to these surfaces. Undesirable light-dark discolouration of the porous plastic surface would be likely.

In order to avoid this, we can provide you with professional system maintenance for your windows, including masking work, at a package price of (...EUR). This will also serve to maintain the value and long-term protection of your windows.

We would be happy to meet and discuss the details with you.

Best regards,
Smith & Jones Painting Contractor

This is what a customer cover letter could look like.

MASKING OUTDOORS: METAL SURFACES

Untreated metals such as copper, zinc or lead must always be protected with particular care. On the one hand, they can be contaminated with paint and dirt during construction work, and, on the other hand, mortars or plasters containing lime and cement attack the metals – as do alkaline silicate paints.

Colour changes
Metals are subject to natural aging (oxidation). If you only mask parts of a metal, there will be slight colour differences between the masked and unprotected areas.

Possible causes
- **Adhesion time:** increasing risk of varying degrees of aging (oxidation) the longer areas are masked
- **Effects of water:** if water can penetrate behind the adhesive (e.g. due to blistered or airtight masking)
- **Chemical reactions:** between zinc, copper and the adhesive (in the case of critical metals, mask for as short a time as possible!)

Adhesive residues
Problems with residues occur mainly on weathered aluminium or anodised aluminium. Inferior aluminium or anodised surfaces are also problematic when masking. Residues often remain on masked surfaces.

PROFESSIONAL TIP

Always check the aluminium substrate first: Check the surface quality with an "ink test"!

Dark tape mark on weathered anodised aluminium, no adhesive residues

Surface change due to condensation on zinc sheet

The double-sided adhesive tesa® 4836 makes it easy to apply individual masking

tesa® 4836 Masking Tape

- Double-sided adhesive
- 6 weeks' UV resistance
- Residue-free removal

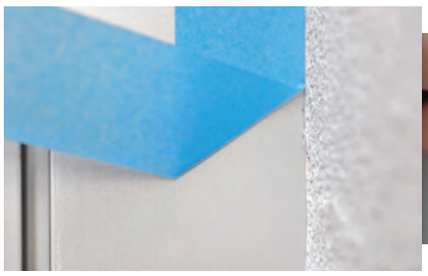
PROBLEMS & SOLUTIONS when masking metal surfaces

Problem	Cause	Solution
Partial discoloration on copper, zinc and lead	Varying levels of weathering due to partial coverage	Full-surface, bubble-free coverage, important to keep adhesive time short
Partial discoloration on copper, zinc and lead	Corrosion due to moisture accumulation under the masking film	Mask for a short time only – and not airtight, e.g. with tesa Easy Cover® 4373 UV Extra Strong and tesa Easy Cover® 4369 UV
Partial discoloration on copper, zinc and lead	Chemical change as a result of contact with the adhesive	Keep the adhesive time short, recommendations: tesa Precision Mask® Outdoor 4440 UV PLUS

MASKING OUTDOORS:
ANODISED ALUMINIUM

When anodising aluminium, the top layer is transformed into a protective layer with a thickness of only 5 to 25 micrometres. If this seal is incomplete due to poor quality or severe weathering, the adhesive bonds will be extremely strong. The result: Adhesive tapes are very difficult to remove – adhesive residues remain.

Better to test first
The ink test helps to check the quality of anodised surfaces. In this way, masking risks can be identified in advance. tesa Precision Mask® 4440 Outdoor UV PLUS can be removed from good-quality anodised surfaces without leaving any residue.



Adhesion to anodised aluminium without adhesive residue with tesa Precision Mask® 4440 Outdoor UV PLUS

Adhesive residues on anodised aluminium

Adhesive tape repeatedly torn due to excessive adhesive strength on weathered aluminium window sill

Application of self-adhesive protective film on anodised aluminium surface not free of bubbles and wrinkles

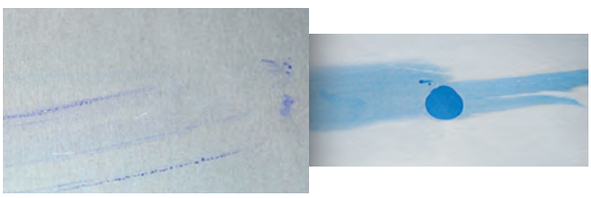
PROFESSIONAL TIP

Do not apply in the visible area if the ink test is poor. If this is unavoidable, tesa® 67001 Plastering Tape embossed or tesa® 4843 Winter Plastering Tape smooth can be used in the short term.

QUICK & EASY – THE “INK TEST”:

Test surfaces in seconds: 1. Place a drop of ink on the area to be tested. 2. Wipe away the ink with an absorbent cloth. If this works without any problems, the aluminium is of high quality. If there is an ink stain, the surface is of poor quality. Masking with PVC tape (e.g. tesa® 67001, 4843) is the only solution here.

Dab ink, then wipe away



No ink spot: good anodising quality / ink spot: poor anodising quality

PROBLEMS & SOLUTIONS when masking anodised aluminium

Problem	Cause	Solution
Adhesive tape is difficult to remove	Microporous substrate allows extreme adhesion of tape	Carry out an “ink test” before masking: If the result is negative, do not apply anything at all, or alternatively or tesa® 4843 Smooth Winter Plastering Tape
Tape mark after removal	Dirt/weathered areas are also stripped off	Full-surface, bubble-free coverage, important to keep adhesive time short
Adhesive residues	High adhesion on heavily weathered aluminium surfaces/ poor quality	If the “ink test” is poor, do not apply masking to visible areas if possible. Alternatively: Use tesa® 67001 Plastering Tape embossed or tesa® 4843 Winter Plastering Tape.

tesa® PROFESSIONAL

SUBSTRATES: PLASTER & BUILDING PROTE

Plastering work is often a little harsher. It's good to be able to rely on secure masking.

ECTION

SUBSTRATES

A special area of outdoor work is reliable plaster and building protection Masking has to withstand contact with the plaster trowel and mortar as well as weather fluctuations. Resistant masking tapes are required here that can be easily removed even after damage. We will show you how to safely mask off rough plaster and how one person can mask large areas even under stormy weather.

MASKING OUTDOORS:
PLASTER AND BRICK SURFACES

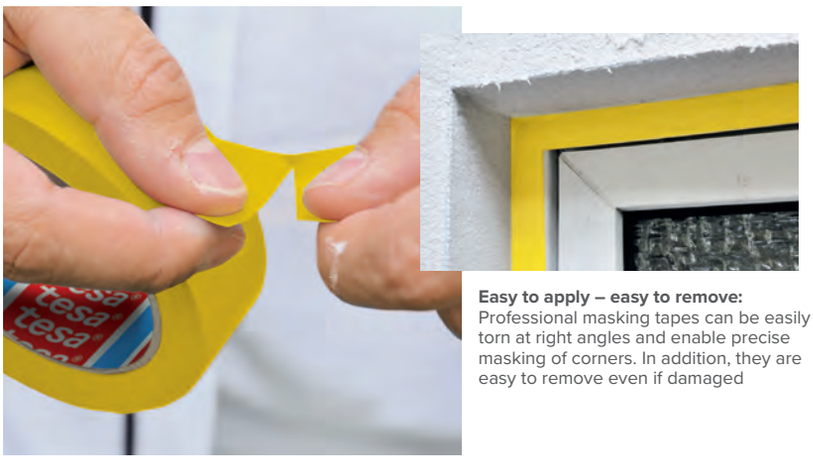
Professional plastering requires reliable protection of windows and sills. Reliable masking tapes not only have to be able to withstand changing weather conditions, they also have to withstand the often strenuous contact with plastering trowel and mortar.

Protect window frames
The tesa® Plastering Tapes have a stable backing film. This makes them particularly robust and prevents constant tearing during removal. In contrast to normal masking tape with a paper backing, they can be removed without leaving any residue, even if they are damaged.

PROFESSIONAL TIP

Tears at right angles: Precise masking in corners is also possible using tesa® 67001 Plastering Tape embossed.

Difficult to apply – difficult to remove:
Basic masking tapes cannot be torn cleanly, making it difficult to mask corners accurately. In addition, these tapes often tear when removed



Easy to apply – easy to remove:
Professional masking tapes can be easily torn at right angles and enable precise masking of corners. In addition, they are easy to remove even if damaged

tesa® 67001 Plastering Tape embossed

- Can be torn by hand
- Clean, square tear edges
- 6 weeks' UV resistance
- Quick and easy removal

tesa® 4621 All-purpose Plastering Cloth Tape

- Perfect tear edge
- Easy to reposition
- Removable for up to 8 weeks without leaving any residue

PROFESSIONAL TIP

tesa® 4621: Multi-purpose tape for plastering work and many other applications (e.g. painting on facades, floor markings, bundling of cables.)

PROBLEMS & SOLUTIONS with masking during plastering work

Problem	Cause	Solution
Adhesive tape tears easily	Using standard masking tape with a paper backing	Use stable adhesive tape for plastering work, Recommendation: tesa® 67001 Plastering Tape embossed
Masking tape is difficult to remove	Basic masking tape was damaged/ torn by plastering work	Resistant masking tape for plastering work, Recommendation: tesa® 67001 Plastering Tape embossed
Plastering tape deforms when applied, weak adhesion	Basic plastering tape used (not sufficiently resistant)	Robust masking tape for even masking on plaster, recommendation: tesa® 4363 UV Plastering Cloth Tape

THE RIGHT TAPE SHOWS NO WEAKNESS

Masking plaster surfaces
Basic plaster tapes deform quickly and make precise work unnecessarily difficult. In addition, their adhesive strength is often insufficient for rough plaster or brick. The tesa® 4363 UV Plastering Cloth Tape is recommended for masking on rough exterior plaster and brick surfaces.

tesa® 4363 UV Plastering Cloth Tape enables straight masking on rough exterior plaster

Basic plastering tapes tend to deform and insufficiently adhere to rough plaster

tesa® 4845 PE Plastering Tape

- Ideal for PVC windows & doors
- 12 weeks UV' resistance
- Application between – 15 °C and + 30 °C

tesa® 4843 Winter Plastering Tape smooth

- Robust and particularly adhesive
- Can be applied down to 0 °C
- 2 weeks' UV resistance

tesa® 4363 UV Plastering Cloth Tape

- Can be removed without tearing
- Good adhesion
- Waterproof
- 3 weeks' UV resistance

Low temperatures
When it gets colder outdoors, no one needs unnecessary extra work due to weak adhesive tape. tesa® 4843 Winter Plastering Tape and tesa® 4845 Plastering Tape PE are two alternatives that provide reliable, strong adhesion even at low temperatures!

PROFESSIONAL TIP

Maintains adhesion down to -40 °C: tesa® 4845 PE Plastering Tape with environmentally friendly PE backing!

Reliable adhesion during plastering: tesa® 4843 Winter Plastering Tape smooth

Often come loose during plastering: low-adhesion PVC film tapes

MASKING OUTDOORS:
LARGE-SCALE PROTECTION

Larger areas need to be reliably protected whenever painting or plastering work is required. This can be very difficult and time-consuming in wind and bad weather with conventional films – even with two people involved.

There is an easier way
With the tesa Easy Cover® 4373 UV Extra Strong 2-in-1 solution, even one person can easily protect large areas. Windows or facade areas are reliably covered in just a few simple steps. The additional plus: The high-quality cloth backing of the adhesive tape guarantees sharp paint or plaster edges.

Annoying and time-consuming: the struggle with normal film

Quick and easy: Attaching the tesa Easy Cover®

Reliable protection of the window with the robust cover film tesa Easy Cover® 4373 UV Extra Strong. It is three times as thick as common films of tape-film combination solutions

tesa Easy Cover® 4373 UV Extra Strong

- Particularly resilient thanks to the combination of thick film and durable cloth tape
- 8 weeks' UV resistance
- Transparent, statically charged, suitable for ESG and UV-coated windows

GOOD TO KNOW

All strong things come in threes: The robust tesa Easy Cover® 4373 UV Extra Strong cover film is three times as strong as common adhesive tape/film combinations on the market. For reliable protection, this extra performance makes it particularly resistant to the mechanical influences of outdoors.

PROFESSIONAL MATERIAL SAVES TIME, WORK AND STRESS

Two operations in one
Masking windows with tesa Easy Cover® 4411 UV Precision is so easy: The roll is fixed on top of the frame - the film can now be unfolded quickly and easily. Then it is adhered to the side and bottom frame with tesa Precision Mask® 4440 Outdoor UV PLUS: done!

Protect windows and frames
With tesa® 4848 Surface Protection Film, windows and frames can be completely covered in just one step. The residents are hardly affected: Windows and doors can be opened for ventilation – the colourless, clear PE film lets unaltered daylight into the room.

One person can easily and effortlessly apply and unfold tesa Easy Cover®.

The application of a conventional masking film takes considerably longer and is much more laborious.

Daylight and ventilation: Cover with tesa® 4848 Surface Protection Film

No daylight, no ventilation: full-surface coloured film covering

GOOD TO KNOW

Multi-layer masking: Is particularly recommended for long-duration plastering work on building facades. Firstly apply tesa® 4440 UV PLUS, which is UV resistant for 6 months, to the sensitive substrate, then apply a robust, large-scale product to achieve greater resistance (e.g. tesa Easy Cover® 4373 UV Extra Strong).

The **tesa Easy Cover® range** offers tried-and-tested adhesive solutions for large-scale protection outdoors. You can find out more about the applications and the specific duration of use on page 37.

tesa® 4848 Surface Protection Film

- Quick and easy to apply
- Resistant to many chemical influences, mechanical damage and moisture
- 4 weeks' UV resistance
- Do not use on weathered plastic and metallic surfaces

tesa® PROFESSIONAL

PROFESSIONAL EXPERTISE

You can never have enough knowledge. On the following pages you will find comprehensive information about masking.

PROFESSIONAL EXPERTISE

As a professional you have a lot to think about and time is often short. Nevertheless, the result has to be perfect. We want to provide you with some useful information in order to make your work a little easier. How can a substrate be tested quickly and reliably? Which adhesive solution best suits the task? And how do I avoid damage or complaints beforehand? You will find answers to these and other questions in the following pages: Make the most of this – and use the knowledge to succeed.

SAVES A LOT OF STRESS: SUBSTRATE TESTING

It is always advisable to test the quality of the substrate prior to application. This will prevent damage in advance. A test application is recommended in which the adhesive tape is removed from the test surface after 24 hours at the earliest. In practice, however, there is usually not enough time for this. The following three quick tests can nevertheless be used to reliably determine the quality of the substrate.

1. WIPE TEST

If there is evidence of chalk, dust or sand when you rub them with your hand, a secure adherence is no longer possible. The coating must first be removed- in the case of mineral surfaces, the substrate should be strengthened with primer.

2. SCRATCH TEST

Carefully scratch the surface with a hard object (painter's spatula, screwdriver tip): if bits break off, the correct level of adhesive strength must be applied. Only light adhesive tapes should be used (tesa Precision Mask® 4334 PLUS or tesa Precision Mask® 4333 Sensitive).

3. TEAR TEST

Good for testing the viability of old paint and dispersion coatings. Simply press a strip of tesa® masking tape or tesafilm® onto the painted area and remove it again immediately with a quick pull. If the coating splinters or bits adhere to the tape, the old coating should be removed.

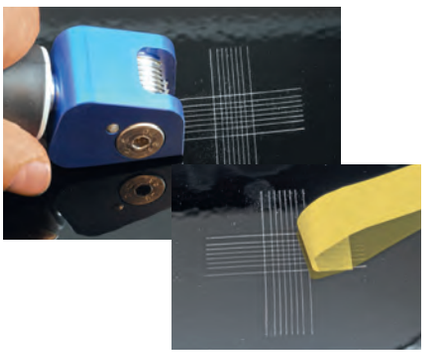
4. CROSS-CUTTING TEST

Using a cutter or a special cross-cutting device, scratch a grid into the old coat of paint (not too deep, so as not to damage the substrate). Test the spot with a tear-off test (tape parallel to the direction of cut and quickly pull off at an angle of 60°). Alternatively brush the area with a soft brush. If no particles are released from the grid, the paint adhesion is optimal. Cross-cut characteristic values (abbreviation: Gt) range from Gt 0 (very good) to Gt 5 (very bad).

Important information regarding DIN EN ISO 2409:
Up until 2008, the standard specified the adhesive strength of the adhesive tape to be used in the cross-cutting test. This provision was subsequently removed: if required, any adhesive tape can be used. Our recommendation: tesa® 4331 and tesaband® 4651 Premium.

Cutting intervals in the cross-cutting test:
- 1–2 mm at max. 60 µm layer thickness
- 2 mm at 60–120 µm layer thickness
- 3 mm at 121–250 µm layer thickness

Important: The cross-cutting test is not applicable for layers thicknesses beyond those specified.



Cut into the paint surface with a cross-cutting device. After removing the adhesive tape, no paint particles have come lose: Evidence of good paint adhesion has been provided

Result of cross-cutting test on a concrete surface. Many particles have come lose and stuck to the adhesive tape: The surface is only partially suitable for masking

Suitable adhesive tapes
tesa® 4331,
tesaband® Premium Cloth Tape 4651,
tesa Precision Mask® 4334 PLUS,
tesa Precision Mask® 4440 Outdoor UV PLUS,
tesa® PRO Strong Duct Tape 74662
and many other tesa® products.

DIFFICULT TO ADHERE TO:
NATURAL AND ARTIFICIAL STONE

Natural stone surfaces are very problematic when masking due to their microporous surface. Adhesive tapes adhere so strongly to marble, granite, slate or sandstone that they usually leave behind residues or discolouration when removed. These are extremely difficult to remedy (not even with cleaning agents). The same applies to some artificial stones such as terracotta.

PROFESSIONAL TIP

Masking on natural stones should be avoided if possible!

Alternative covering
To avoid damage caused by masking, natural stone should be covered with felt or fleece. The use of softwood or hardboard also offers strong mechanical protection of the surfaces.

Masking on joints
If the natural stone is set with silicone joints, masking can be carried out using tesa® 4331 directly applied to the silicone joints. The masking must be open to diffusion in order to let condensation water through (ideal: fleece).

Colour changes to natural stone (Belgian granite, matt finish) after using adhesive tape

GOOD TO KNOW

Caution with "stone tapes": The highly adhesive cloth tapes often referred to in the trade as "stone tape" are not suitable for natural and artificial stone. They pose a particularly high risk of discolouration and adhesive residues. They are only suitable for simple adhesion to plaster and concrete.

PROBLEMS & SOLUTIONS when masking natural and artificial stone

Problem	Cause	Solution
Tape mark on matt polished granite surface	Embedding of the adhesive compound in the fine pores of the stone	Do not apply any further adhesive tape to the surface, damage can only be repaired by grinding
Dark colouring on freshly laid natural stone slabs	The substrate moisture cannot escape from within the adhesive seal.	Do not apply tape to the stone surface, instead use a covering that is open to diffusion, e.g. fleece
Surface discolouration on sandstone	Adhesive removes particles from the surface	Do not apply more adhesive tape: alternative covering using fleece, soft wood or hardboard

UNRESPONSIVE SUBSTRATES:
ANTI-ADHESIVE SURFACES

Some materials are very difficult to tape. So-called anti-adhesive surfaces require special adhesive tapes, as masking with standard adhesive tapes is virtually impossible in these cases.

Difficult-to-tape surfaces:
- Silicone sealants and sealing profiles
- Teflon, polyethylene (PE) polypropylene (PP)
- Silicone resin paints and silicone-based plasters
- Facade sealing tapes/facade sealants
- Certain powder-coated components (often with textured paint or glimmer effect)

Growing trend
In the future, the number of substrates that are difficult to apply adhesive to is likely to increase. Coatings with a dirt-repellent effect (e.g. the lotus effect) continue to gain in prominence. There is currently no universal adhesive tape for this type of surface.

Adhesion to silicone seals: only possible with special material, e.g. tesa® 4331

Window sealing tapes are particularly difficult to adhere to: tesa® 4363 UV Plaster and Building Protection Tape is the perfect solution

PROFESSIONAL TIP

Adhesive tapes often cause deepening of colour on coated surfaces. It is therefore better to mask the entire surface.

tesa® 4363 UV Plastering Cloth Tape

- Can be removed without tearing
- Good adhesion
- 2 weeks' UV resistance
- Waterproof

tesa® 4331

- Strong adhesion
- Flat covering edges
- Easy to remove
- Particularly supple

PROBLEMS & SOLUTIONS when masking anti-adhesive surfaces

Problem	Cause	Solution
No (or insufficient) adhesive strength	Anti-adhesive silicone sealants or surfaces with silicone residues	Reliable adhesion only possible with special masking tapes, e.g. tesa® 4331
No (or insufficient) adhesive strength	Anti-adhesive facade sealing tapes or sealants, silicone resin plasters	In many cases, good results have been achieved using tesa® 4363 UV Cloth Plaster and Building Protection Tape and tesa® 4663 Premium Stone Tape (max. adhesion time: 3 days)
No (or insufficient) adhesive strength	Anti-adhesive powder coatings (e.g. with structure and glimmer effect) or plaster with vinyl components	UV plaster and building protection tapes tesa® 4363 or tesa® 4331 (recommendation: mask the entire surface!)

A SIGN OF GOOD WORK:

EXTRA SHARP PAINT EDGES

Clean coats of paint and sharp edges are essential for the professional painting trade. Some substrates, however, require a few tricks of the trade to achieve perfection. With this knowledge and the appropriate material, extra sharp paint and varnish edges can be achieved very easily.

On smooth surfaces
With high-quality masking tapes such as tesa Precision Mask® 4440 Outdoor UV PLUS or 4334 PLUS, an extremely flat special paper backing and high-precision cutting technology ensure that there are no runs or uneven edges, even with problematic varnishes or very runny paints. These tapes are extremely flat at just under 90 µm.

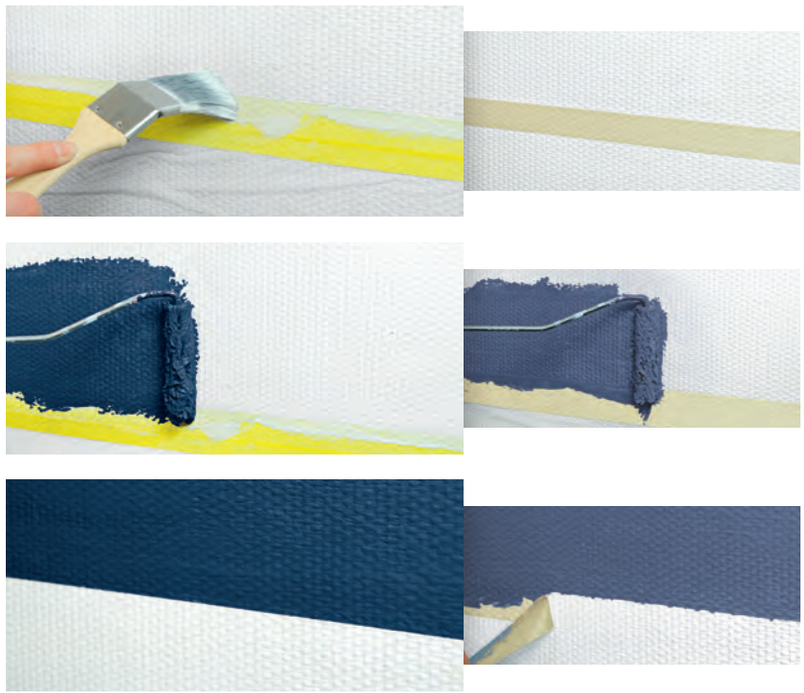
PROFESSIONAL TIP

If pressed on firmly, tesa Precision Mask® delivers perfect results even on slightly rough surfaces.

On rough substrates
Owing to the flexibility of the precision tapes, a sharp paint edge can be achieved by pressing firmly, even on slightly rough surfaces. In order to achieve a perfect result on rough surfaces, “counter-coating” using the substrate colour ensures that small cavities between the tape and the substrate are filled and the contrasting colour cannot penetrate through.

GOOD TO KNOW

When things get particularly rough: For very coarse surfaces (rough plaster or similar), it is advisable to use a stronger adhesion covering tape (e.g. tesa® Plaster and Building Protection Tape tesa® 4363) instead of masking tape. The thicker adhesive padding means that they mould better to the surface. Important: “Counter-coat” at least once with the substrate colour!



With "counter-coating": It's that easy!

1. Apply masking tape and press firmly! Then paint over the tape in the same colour as the substrate to close the cavities.
2. Apply the contrasting colour after the "counter-coating paint" has dried.
3. The result is immediately impressive: extra sharp paint edges regardless of the rough surface.

Without “counter-coating”: Not acceptable!

1. Just applying the masking tape and pressing firmly is not sufficient for very rough surfaces.
2. When applying the contrasting colour directly, paint can penetrate into small indentations between the tape and the substrate.
3. The result is anything but professional: unclean paint edges due to paint runs.

tesa Precision Mask® 4334 PLUS and
tesa Precision Mask® 4440 Outdoor UV PLUS

- For all painting and varnishing work with an extra sharp paint edge
- Tear-resistant, thin special paper
- Residue-free removal

STRAIGHTFORWARD: TAPE REMOVAL

Removing adhesive tape
The best time to remove an adhesive tape is immediately after drying – but before complete drying. A steady speed and a pull-off angle of 45° make removal very easy. For longer adhesion periods, it may help to vary the angle and peel off the tape very slowly.

Removal of adhesive residues
Adhesive residue will occur if an unsuitable adhesive tape is used or if the tape is left too long before being removed. Removal then takes a little more time and effort. The following procedure can help.

1. BLOTTING

Residues can be "blotted" using the adhesive side of tesa® tapes. Stronger adhesive products such as tesa® 4651 Premium Cloth Tape are particularly suitable for this purpose. If necessary, repeat the blotting process several times. If this is not successful, a solvent will help.

2. SOLVENT

Adhesive residues can be removed with adhesive remover or, if necessary, cleaning solvent. (Test the surfaces first in an inconspicuous place!) The loosened residues can be removed from the surfaces easily with the help of a plastic spatula.

PROFESSIONAL TIP

Adhesive tapes can usually be removed more easily if they are heated with a household hair dryer.

tesa® 60040 Industry Cleaner

- Also dissolves stubborn dirt such as wax, oil, grease and similar
- Dissipates without leaving any residue

tesa® 60042 Adhesive Remover

- Reliably removes residues from e.g. labels and adhesive tapes as well as grease, tar, resin and other contamination
- Dissipates without leaving any residue

Caution when using solvents: Paint, rubber and plastics can be damaged. It is therefore essential to carry out a test application on a concealed area
Important:
Ensure adequate cross-ventilation and, if possible, wear a respirator with an A filter (follow manufacturer's instructions and observe hazard warnings)

PROBLEMS & SOLUTIONS when removing adhesive **tape**

Problem	Cause	Solution
Adhesive tape difficult to remove	Use of an adhesive tape that is unsuitable for the application	Heat with a hair dryer and gently remove Vary speed and removal angle
Adhesive tape difficult to remove, repeated adhesive residues	Hardening of the adhesive compound due to being applied for too long a period	Blot the adhesive residue to remove – if this is unsuccessful: use adhesive remover or cleaning solvent
Stubborn adhesive residues despite using adhesive remover	Adhesive remover (cleaning solvent) was not sufficiently effective	Allow the adhesive remover to work for at least 1 minute, carefully remove the residues of adhesive with a plastic spatula (repeat the process several times if necessary)

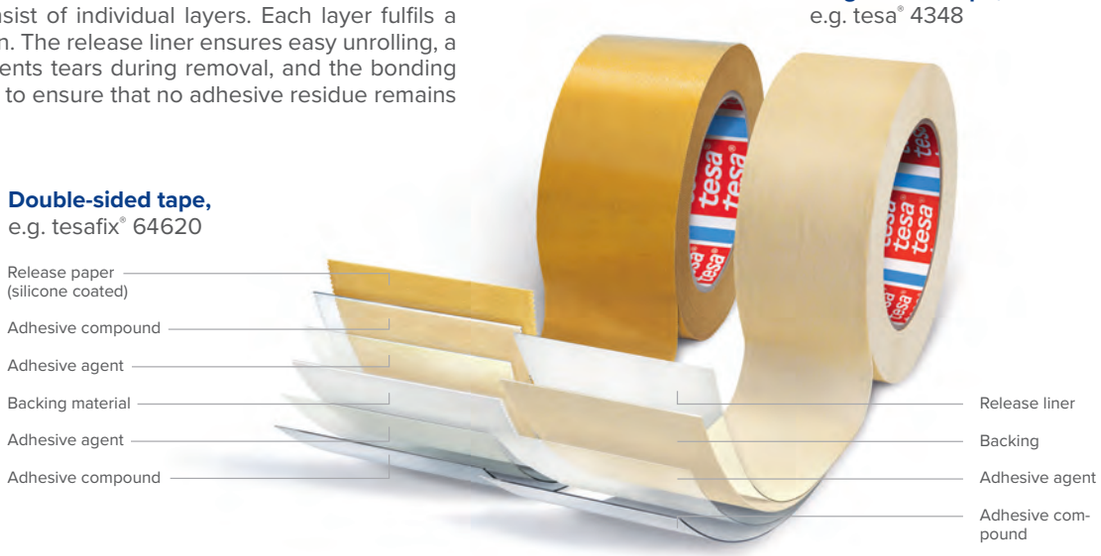
ALL-ROUNDER ADHESIVE TAPE:
HIGH-TECH OFF THE ROLL

The secret of professional adhesive tapes lies in their adhesive compound. It must be so elastic that it adapts well to the taped surface when pressed on. At the same time, the adhesive must be strong enough to be used over a longer period of time.

Adhesive tapes consist of individual layers. Each layer fulfils a very specific function. The release liner ensures easy unrolling, a stable backing prevents tears during removal, and the bonding agent (primer) helps to ensure that no adhesive residue remains on surfaces.

Single-sided tape,
e.g. tesa® 4348

Double-sided tape,
e.g. tesafix® 64620



SMART SOLUTION FOR COVERING LARGE AREAS
tesa® EASY COVER PRODUCTS

tesa Easy Cover®	Duration of use in weeks		Adhesive tape	Film strength or paper	Adhesion on smooth/ rough substrate	Quality of paint edge	Cover height (mm)								
	■	■					180	200	300	550	1100	1400	1800	2100	2600
4365 Precision PLUS	26	8	Precision® 4334	Standard	+++ / ++	+++++				■		■		■	■
4401 Precision Standard Paper	12	–	Precision® 4344	Paper	++ / ++	++++	■		■						
4451 Spray	12	–	Precision® 4344	Paper	++ / ++	++++		■							
4368 Universal	1	–	Premium masking tape	Standard	++++ / +++	+++			■	■	■	■	■	■	■
4364 paper	1	–	Premium masking tape	Paper	++++ / +++	+++	■		■						
4403 Standard	0.5	–	Standard masking tape	Standard	+++ / ++	++				■		■			■
4405 Standard	0.5	–	Standard masking tape	Paper	+++ / +	++	■		■						
4373 UV Extra Strong		8	UV Extra Cloth Tape	Extra strong	++++ / +++	++				■		■			■
4369 UV Cloth		2	UV Cloth Tape	Standard	++++ / +++	++				■	■	■	■	■	■

■ Indoor ■ Outdoor

PRODUCT RECOMMENDATIONS: FOR INDOOR USE

Substrates/ surfaces	Nature	Application examples	Recommended product	Alternative	Large-scale protection
Wood	Painted, varnished	Steps (edge area only), doors, windows, skirting boards	4334 6 MONTHS INDOORS	4348 1 WEEK INDOORS	4365 6 MONTHS INDOORS; 4401 3 MONTHS INDOORS
	Waxed, oiled, untreated	Parquet, stairs (edge area only)	4333 (short duration) 2 WEEKS INDOORS		
Plastics	Smooth	Doors, windows, skirting boards	4334 6 MONTHS INDOORS	4338 4 WEEKS INDOORS; 4348 1 WEEK INDOORS	4365 6 MONTHS INDOORS; 4401 3 MONTHS INDOORS
Soft PVC, vinyl	Smooth	CV floor coverings	4334 6 MONTHS INDOORS	4348 1 WEEK INDOORS	4365 6 MONTHS INDOORS; 4364 1 WEEK INDOORS
	Structured	CV floor coverings	4440 6 MONTHS OUTDOORS		4365 6 MONTHS INDOORS
Metal (aluminium, anodised)	Smooth	Windows, door profiles, etc.	4334 6 MONTHS INDOORS	4845 3 MONTHS INDOORS	4365 6 MONTHS INDOORS; 4401 3 MONTHS INDOORS
	Powder-coated	Windows, door profiles, etc.	4334 6 MONTHS INDOORS	4440 6 MONTHS OUTDOORS	4365 6 MONTHS INDOORS
Plaster, reinforcement mortar	Smooth	Wall	4334 6 MONTHS INDOORS		4365 6 MONTHS INDOORS; 4368 1 WEEK INDOORS
	Rough	Wall	4440 6 MONTHS OUTDOORS	4338 4 WEEKS INDOORS; 4363 2 WEEKS OUTDOORS	4369 2 WEEKS OUTDOORS
	Painted (dispersion, silicate, silicone resin paints	Wall	4334 6 MONTHS INDOORS	4338 4 WEEKS INDOORS; 4348 1 WEEK INDOORS	4365 6 MONTHS INDOORS
Mineral decorative and polished plasters	Sensitive, Smooth	Filler application, wall finishing	Multi-layer masking: 4333 under 2 WEEKS INDOORS; 4368 1 WEEK INDOORS	We strongly advise trial application in the case of decorative and polished plasters with plastic binder components, as streaking may occur.	
Wallpaper	printed, sensitive	Decorative photo wallpaper	4333 2 WEEKS INDOORS		
	Structured	Woodchip	4334 6 MONTHS INDOORS		4365 6 MONTHS INDOORS
	Painted (dispersion, latex paints)	Wall	4334 6 MONTHS INDOORS	4348 1 WEEK INDOORS	4365 6 MONTHS INDOORS; 4368 1 WEEK INDOORS
Laminate	Smooth (edge area only)	Floors, skirting boards	4334 6 MONTHS INDOORS	4333 2 WEEKS INDOORS	4365 6 MONTHS INDOORS
Natural and artificial stone	Glazed	Tiles, plinth	4334 6 MONTHS INDOORS	4363 3 WEEKS OUTDOORS	4369 2 WEEKS OUTDOORS; 4365 8 WEEKS OUTDOORS
	Natural	sandstone, slate, Exposed concrete	Natural stone surfaces are generally problematic when masking due to their microporous surface. We therefore advise against using adhesive tape without prior trial application.		

PRODUCT RECOMMENDATIONS:
FOR OUTDOOR USE

Substrates/ surfaces	Nature	Application examples	Recommended product Painting	Recommended product Cleaning	Large-scale protection Painting/plastering
Wood	Painted, varnished	Doors, windows, profiles	4440 6 MONTHS OUTDOORS	4363 3 WEEKS OUTDOORS	4365 8 WEEKS OUTDOORS; 4373 2 MONTHS OUTDOORS
Plastics	Smooth	Doors, windows, profiles	4440 6 MONTHS OUTDOORS	4845 12 WEEKS OUTDOORS; 67001 6 WEEKS OUTDOORS	4365 8 WEEKS OUTDOORS; 4373 2 MONTHS OUTDOORS
Hard PVC	Weathered	Doors, windows, profiles	4440 6 MONTHS OUTDOORS	4845 3 MONTHS OUTDOORS	4365 8 WEEKS OUTDOORS; 4373 2 MONTHS OUTDOORS
Metal (aluminium, anodised)	Smooth	Windows, door profiles, etc.	4440 6 MONTHS OUTDOORS	4845 3 MONTHS OUTDOORS	4365 8 WEEKS OUTDOORS; 4373 2 MONTHS OUTDOORS
	Powder-coated	Windows, door profiles, etc.	4440 6 MONTHS OUTDOORS	4845 3 MONTHS OUTDOORS; 4621 2 MONTHS OUTDOORS	4365 8 WEEKS OUTDOORS; 4373 2 MONTHS OUTDOORS
Natural and artificial stone	Natural	Sandstone, slate, exposed concrete	Natural stone surfaces are generally problematic when masking due to their microporous surface. We therefore advise against using adhesive tape without prior trial application.		
Plaster, reinforcement mortar	Smooth	Wall, balcony	4440 6 MONTHS OUTDOORS	4363 3 WEEKS OUTDOORS	4369 2 WEEKS OUTDOORS; 4373 8 WEEKS OUTDOORS
	Rough	Wall, balcony	4440 6 MONTHS OUTDOORS	4363 3 WEEKS OUTDOORS	4369 2 WEEKS OUTDOORS

OTHER PRODUCTS FOR OUTDOORS

tesa® 4836 Masking Tape

- Allows individual masking of all kinds for protecting large areas
- Double-sided adhesive
- 6 weeks' UV resistance
- Residue-free removal

tesa® 4848 Surface Protection Film

- Quick and easy to apply
- Resistant to many chemical influences, mechanical damage and moisture
- 4 weeks' UV resistance
- Do not use on weathered plastic and metallic surfaces

EVERYTHING FOR A PERFECT HOLD:
BRIEF MATERIAL SCIENCE

Preparation of adhesive compound production: Extraction from natural rubber bales

Raw material for the production of masking tapes: Crepe paper jumbo rolls

Harvesting a natural raw material: rubber milk

The backing materials
How easily an adhesive tape can be applied is strongly influenced by the type of backing material. A tape with a **creped paper backing** is easy to tear by hand and to apply to curves. A **cloth** backing can also be easily torn by hand, but in addition offers greater mechanical resilience (better protection against damage). The **PVC film backing** provides good resistance to the effects of weathering, plaster and mortar.

The adhesive compound
There are basically three different types of adhesive compound. All three consist of basic raw materials (elastomers) whose basic properties can be further refined by introducing additives. Each of these three adhesive systems offers specific advantages and disadvantages that should always be considered:

1. Natural rubber
- Balanced tack strength – stronger tack
- Good adhesive strength on almost all substrates (including surfaces such as PE, PP and anti-graffiti)
- Limited UV resistance

2. Synthetic rubber
- Adhesive strength strongly dependent on the substrate (very low on some plastic surfaces)
- Suitable for short-duration masking only
- Limited UV resistance

3. Acrylic base
- Ideal for longer-duration adhesive application
- Particularly UV and weather resistant

The release liner
The backing material of single-sided adhesive tapes is usually coated with a release liner. This adhesion-reducing layer ensures easy unrolling of the adhesive tape. The challenge is to get the right amount of adhesion reduction so that paints or coatings do not "flake off" when the tape is removed.

The adhesion agent (primer)
A primer is often applied between the backing material and the adhesive. Similar to a primer when painting, it improves adhesion by better anchoring the adhesive. This prevents adhesive residues from occurring when the tape is removed.

PROFESSIONAL ADHESION:
TECHNICAL DATA

How strong is an adhesive tape? How tear-resistant? Or how UV-resistant? The following characteristics describe the most important product features.

Adhesive strength
This measure defines how strongly an adhesive tape adheres to a surface. The adhesive strength is given in Newtons per cm of adhesive tape width (N/cm).

Tack
The spontaneous adhesion of an adhesive tape (without it being pressed on) is defined as the tack – also known as the tack strength.

Unwinding force
The effort required to pull an adhesive tape off the roll is characterised by the unwinding force (unit: N/cm).

BACKING MATERIAL PROPERTIES

Paper	
Precision **Mask®**, smooth (Washi)	Slightly elastic, results in very precise and extra-flat paint edges
Fine crepe	Moderate elasticity, allows application of gentle curves, results in flat paint edges
High crepe	Tape can be applied to tight curves, paint edges less accurate than with fine crepe because paper structure is thicker
Cloth	
PE-coated	Can be easily torn by hand, very strong even with significant moisture, good protection of the substrate against damage
PVC film	
Advantages of PVC	UV resistant, resistant to mortar, plaster and chemicals
Surface smooth	Can be torn by hand
Surface ribbed	Particularly light and can also be torn cleanly by hand at right angles

MATERIAL TYPE/ADHESIVE PROPERTIES

			
Wettability	Poor	Good	Very good
Surface energy	Adhesive compound > Substrate	Adhesive compound = Substrate	Adhesive compound < Substrate

Identifying the right product

- Types of materials to be adhered/adhesive properties
- Surface structures
- Weather/environmental influences
- Temperature loading
- Duration of adhesion
- Mechanical loading

Tear strength
This number describes the amount of force required to tear the adhesive tape. It is measured in the longitudinal direction and stated in N/cm.

Elongation at break
This value defines the ability of an adhesive tape to stretch before the material tears. The unit of measurement for elongation at break is percent (%).

Material thickness
The thickness of an adhesive tape is measured in µm (= 1/1000 mm). For comparison: The material thickness of stronger writing paper is 80 µm.

Cloth density
The density (mesh) of cloth tapes can be defined by the number of threads in an area of 2.54 x 2.54 cm (1 square inch).

Shear strength
This parameter describes the resistance of an adhesive tape when it is pulled (parallel to the surface) (e.g. when mounting a wall mirror).

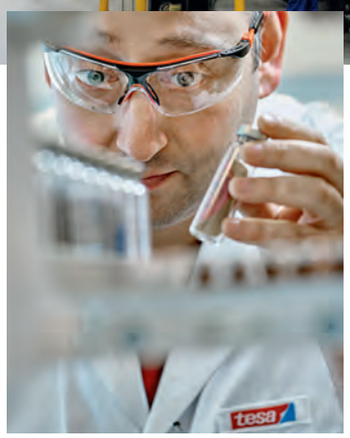
Types of loading and their effect on adhesion	 Shear force	 Tensile force	 Peeling force	 Splitting force
Exposure area	large	large	small	small
Adhesive strength	high	high	low	low

THERE IS A GOOD REASON FOR SUCCESS:
CERTIFIED BRAND QUALITY

Quality "Made in Germany"
For generations, the tesa® brand has been synonymous with innovative top quality "Made in Germany". Approximately 2,500 excellently qualified employees manufacture products for the extensive tesa® range at our locations throughout Germany. Tried-and-tested tesa® products such as tesafilm®, tesaband®, tesa®, tesapack®, tesafix®, tesamoll® and tesa® Powerstrips® are valued all over the world.

Over 100 years of experience
Our many years of experience in developing innovative adhesive solutions have made us a world leader in many areas. To ensure that this remains the case, tesa experts in Germany, the USA, Japan and China are researching new, innovative ideas that bring success to our customers and to us.

DIN ISO 9001 certified
tesa® was the first adhesive tape manufacturer in the world to be DIN ISO 9001 certified. This internationally leading quality assurance standard examines all relevant processes of a company in order to permanently ensure the highest level of quality, efficiency, transparency and customer satisfaction. Regular inspection intervals also ensure an excellent level of quality in the long term.

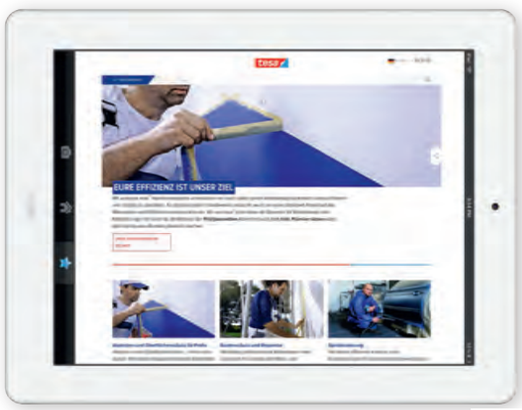


Industry partner
We provide professional adhesive solutions for almost all industrial and trade sectors. As a long-standing partner to the automotive industry, we also meet the requirements of DIN ISO/TS 16949 – in addition to DIN ISO 9001: the international standard in the automotive industry. Naturally, tesa® facilities also meet the criteria of the global environmental standard DIN ISO 14001.

Quality that counts
The legendary tesa® quality provides numerous advantages: efficient work without compromise, no risk of complaints, maximum time and cost savings, and satisfied customers. This is what counts with every new order – day after day.

Because one thing counts above all else: a perfect result.

ALWAYS EASY TO REACH:
FIRST PORT OF CALL FOR PROFESSIONALS



Enjoy practical benefits
Our professional portal provides a quick overview of the extensive tesa® range. The latest version of the tesa® catalogue for painters is available for download. Visit the web site at www.tesa.co.uk/craftsmen or

The tesa Group – worldwide

With offices in over 100 countries , 8 production facilities and more than 5,000 employees, tesa® is one of the world's leading manufacturers of self-adhesive product and system solutions.
Since 2015, **tesa SE** has had its headquarters, research centre and technology centre in Norderstedt near Hamburg, Germany.

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