

Science. Applied to Life.™

Rethink what's possible.

Explore the industrial adhesives and tapes bonding portfolio









3M[™] Dual-Lock[™]



3M adhesives & tapes

In the dynamic realm of design and engineering, practitioners face daily challenges in enhancing both designs and manufacturing processes. Addressing this demand, 3M presents a transformative range of tapes and adhesives.

Empowering the utilization of diverse materials in product design, our solutions contribute to elevated aesthetics, lighter constructions, and enhanced end performance. These innovative adhesive and tape solutions empower customers to craft products with creativity, efficiency, and effectiveness.

Spanning a wide array of applications and substrates, 3M's adhesives and tapes are versatile, offering tailored solutions to optimize your assembly process.

Find your product

3M[™] Thin Bonding Tapes

Your design

Your parts, your design and production experts

Our technology

Our science and our team of adhesive experts

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Complete solution

One complete solution for your application



Product family finder



Advantages of 3M tapes and adhesives over mechanical fastening

Equalizing unevenness

- · Components are joined completely and without gaps
- No restoring forces, stress-free compensation of tolerances after dwell time
- Surface roughness and unevenness can be compensated by tapes and adhesives

- Individual customer solutions
 - Tapes can be converted into specific shapes according to your requirements

Joining material combinations

• Different thermal expansion coefficients can be compensated (e.g. plastic and metal)

> bond inhibits noise and reduces vibrations

Damping effect • The closed and complete



Learn more about the benefits of adhesives and tapes bonding.

Sealing function

 Protection against the ingress of dirt or water into the joint construction

Even stress distribution

 Rather than concentrated stress across several fastener points, the substrate is evenly stressed over the area of the bond.

Weight reduction

 Significant weight advantage compared to mechanical fastening

Freedom of design

• Compared to screws or rivets, tapes and adhesives remain invisible

Quick and easy mounting

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 Speeds up production processes and reduces labor costs – less pre and post processing required

Minimize the risk of corrosion

• With tapes and adhesives, no holes are required for fastening. The surface remains undamaged and protected (e.q. zinc, paint).

Elevate your bonds with proper surface preparation

Surface Preparation

Surface preparation is essential for achieving optimal bonding performance with adhesives and tapes, ensuring a clean, contaminant-free substrate that promotes strong and durable connections.

Surfaces are prepared by one of the following procedures:

1. Degrease only

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- 2. Degrease, abrade, and solvent clean
- 3. Degrease and chemically pre-treat

Degrease

3M[™] Industrial Cleaners and Adhesive Removers are ideal for helping dissolve and remove dirt, grease, tar, and many non-curing type adhesives.

Abrade

- Remove heavy levels of dirt or oxide from metals or paints (e.g. galvanized steel)
- Create additional surface area that can increase adhesion
- Smooth a surface to obtain more flatness, allowing improved contact area

Solvent clean



Most substrates are best prepared by cleaning with a 50:50 mixture of isopropyl alcohol (IPA) and water prior to applying 3M Tapes. There are exceptions! For special surfaces or soiling, simply ask our 3M Bonding Experts for advice.

Chemically pre-treat



But to obtain maximum strength, reproducibility and resistance to deterioration, a chemical or electrolytic pretreatment is required. Please reach out to our 3M Bonding Experts to learn more.

The use of Primer

Priming the surface is particularly necessary for adhesive and tape bonding when dealing with challenging surfaces or specific requirements, as it enhances adhesion by creating a receptive substrate, improving wetting, and promoting a secure and long-lasting bond.



- 1. Surface preparation See details on the left
- 2. Apply primer One of the methods below can be used. Please always follow the instructions on the packaging.
 - Primer on a disposable towel
- \sim



3. Let dry before taping

Dauber bottle

Foam brush



How to apply your tape



1. Surface preparation (details on previous page)





Ca. 2 kg/cm²

72 h

20 °C

2. Application

- Place the adhesive tape on the surface to be bonded, do not stretch it
- Avoid air pockets
- Do not touch adhesive & bonding surface
- Optimum processing temperature: 15 to 25 °C

3. Proof pressure

• Press/roll on the adhesive tape well with approx. 2 kg/cm²

4. Remove liner

- Remove the line in one piece (to avoid "stop marks")
- Do not touch the adhesive surface

5. Joining & pressing

- Apply the joining material
- Avoid air pockets
- Apply pressure with approx. 2 kg/cm²

6. Wait for final adhesive strength

- Only load after dwell time
- 50% of the final adhesive strength after approx.
 20 minutes
- Final adhesive strength at 20 °C is achieved after 72 hours
- Heat accelerates the process (e.g. final bond strength at 65 °C after one hour)



3M[™] VHB[™] Tapes

3M[™] VHB[™] Tapes are advanced adhesive tapes designed for bonding a wide range of materials with exceptional strength and durability. These tapes can provide a versatile alternative to traditional fastening methods such as screws and welds.

3M[™] VHB[™] Tapes offer a seamless and aesthetically pleasing solution, effectively eliminating the need for visible fasteners. Known for their ease of application, these tapes have become a trusted choice across various industries for creating robust and invisible bonds between different surfaces, including metals, plastics, glass, and composites.



The 3M[™] VHB[™] Tape is viscoelastic

A key advantage of 3M[™] VHB Tapes[™] over foam tapes is their visco elasticity, allowing them to absorb energy and relieve stresses. Unlike foam tapes, 3M[™] VHB[™] Tapes can stretch up to 50% of their thickness without tearing or delaminating.



vs.

Regular foam tape

• Foam carrier susceptible to cracks

• Stress in the bond

3M[™] VHB[™] Tapes:

- Stress-free bonding
- Absorbs energy and relieves stresses

While foam tapes have only a thin adhesive film on the upper or lower side, 3M[™] VHB[™] Tapes are entirely made of adhesive. The viscoelastic structure of the 3M[™] VHB[™] Tapes allows it to flow into the surface. It does not cure but remains flexible, establishing a 100 % wetting.

vs.



Foam tape

- Can be open or closed cell
- Can only compensate for minimal surface roughness or tolerances





• Surface roughness and tolerances are compensated by the adhesive flowing into the surface



| 3M [™] VHB [™] Tapes | Product | Thickness | Adhesion | Temperature resistance (°C) | | Density | | | |
|---|-------------------|-----------------------|--------------------|-----------------------------|--------------------------------|----------------------|------------|--------------|--|
| | no | (mm) | to steel (N/cm) | Long term (days, weeks) | Short term (minutes, hours) | (kg/m ³) | Colour | Certificates | |
| Ideal for multi-material bonding | | | | | | | | | |
| For bonding high-energy materials such as metals (including steel), many plastics and soft PVC | <u>4936</u> | 0.64 | 30.0 | 90 | 150 | 720 | | UL 746C | |
| For indoor and outdoor use | 4941 | 1.10 | 35.0 | 90 | 150 | 720 | | UL 746C | |
| Good plasticizer resistance | <u>4956</u> | 1.55 | 35.0 | 90 | 150 | 720 | | UL 746C | |
| | <u>4991</u> | 2.30 | 35.0 | 90 | 150 | 720 | | UL 746C | |
| |) <u>4947</u> | 1.10 | 35.0 | 90 | 150 | 720 | \bigcirc | UL 746C | |
| | 4979 | 1.55 | 35.0 | 90 | 150 | 720 | \bigcirc | UL 746C | |
| For powder coated surfaces | | | | | | | | | |
| For bonding low-energy materials such as powder coatings and high-energy materials such as metals (including steel) | <u>5909</u> | 0.30 | 21.0 | 90 | 120 | 750 | \bigcirc | | |
| and many plastics | <u>5925</u> | 0.64 | 35.0 | 120 | 150 | 590 | \bigcirc | UL 746C | |
| Offers optimum adaptability to the surfaces to be bonded | <u>5952</u> | 1.10 | 35.0 | 120 | 150 | 590 | \bigcirc | UL 746C | |
| • For indoor and outdoor use | <u>5962</u> | 1.55 | 35.0 | 120 | 150 | 640 | \bigcirc | UL 746C | |
| For high temperatures and before powder coating | | | | | | | | | |
| For applications under high operating temperatures, such as before processing in a powder coating line | <u>RP+040GP/F</u> | 0.40 | 31.0 | 121 | 230 | 800 | | | |
| For high- and medium-energy materials such as metals | <u>GPH-060GF</u> | 0.60 | 25.0 | 150 | 230 | 710 | | | |
| (e.g. steel) and various plastics (e.g. PA, acrylic glass/ | <u>RP+080GP/F</u> | 0.80 | 45.0 | 121 | 230 | 750 | | | |
| PMMA, ABS) • For interior and exterior use | <u>GPH-110GF</u> | 1.10 | 37.0 | 150 | 230 | 710 | \bullet | | |
| | <u>GPH-160GF</u> | 1.60 | 34.0 | 150 | 230 | 710 | | | |
| | <u>RP+230GP/F</u> | 2.30 | 57.0 | 121 | 230 | 705 | | | |
| For critical plastics and composite materials | | | | | | | | | |
| For bonding difficult-to-bond LSE substrates without primer, such as PP, TPO, GRP, CFRP and polyester coatings | LSE-060WF | 0.60 | 30.0 | 100 | 150 | 715 | | | |
| • Adhesion at low temperatures from 0 °C (frost-free) | <u>LSE-110WF</u> | 1.10 | 44.0 | 100 | 150 | 715 | \bullet | | |
| For indoor and outdoor use | <u>LSE-160WF</u> | 1.60 | 54.0 | 100 | 150 | 715 | | | |
| For transparent materials | | | | | | | _ | | |
| For joining transparent materials such as glass and many plastics | <u>4905</u> | 0.5 | 21.0 | 90 | 150 | 960 | () | UL 746C | |
| • For indoor and outdoor use | <u>4910</u> | 1.0 | 26.0 | 90 | 150 | 960 | | UL 746C | |
| | <u>4915</u> | 1.5 | 26.0 | 90 | 150 | 960 | | | |
| | <u>4918</u> | 2.0 | 26.0 | 90 | 150 | 960 | () | | |
| 3M [™] VHB [™] Extrudable Tape | | | | | | | | | |
| Γhe 3M™ On Demand Bonding System featuring 3M™ VHB™ Extrudable Tape: | Extrudable Tape | 2 | | | | | _ | | |
| Simple, automated solution | <u>GP</u> | ⁻ variable | 86.0 | 90 | 100 | 970 | \bigcirc | UL746C | |
| Easily integrates into your assembly line | | | | | | | | | |
| Low VOC | | | | | | | | | |
| 85% reduction in VOCs compared to common acrylic foam tapes | LVO-060BF | 0.6 | 38 | 93 | 121 | 540 | \bigcirc | FDA, VDA278 | |
| 80% reduction in fog compared | LVO-110BF | 1.1 | 38 | 93 | 121 | 540 | \bigcirc | FDA, VDA278 | |
| to common acrylic foam tapes | LVO-160BF | 1.6 | 38 | 93 | 121 | 540 | 0 | FDA, VDA278 | |
| | | | | | | <u> </u> | | | |
| | | | | | 🔵 Black 🌘 Gre | ey ∖_jTr | anspare | ent White | |
| Product overview | | | | | | | | | |
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Liner

PET Carrier

3M[™] Double Coated Tapes

Thickness: 25 – 250 µm

adhesive transfer tape

• With (intermediate) carrier

Lower flexibility and conformability than

 Compensates for surface roughness less effectively than adhesive transfer tape

Increased internal stability thanks to carrier

• Different adhesives on both sides possible

• Carrier limits temperature resistance

Easier to handle and to die-cut

Better dispensability

Levelwound rolls possible



Adhesive layer

3M[™] Thin Bonding Tapes

Discover the advantages of 3M's thin bonding solutions

Crafted with precision, these products boast a thickness of 0.25 mm or less, offering a sleek and streamlined solution for various applications. Ideal for finished products requiring a reduced overall profile.

Experience exceptional conformability

Our thin bonding tapes are designed for versatility, featuring exceptional conformability that makes them perfect for intricate surface geometries. Whether you're working with complex shapes or demanding surfaces, 3M's thin bonding tapes deliver reliable adhesion and adaptability.





3M[™] Adhesive Transfer Tapes

- Thickness: 25 250 μm
- Without (intermediate) carrier
- High flexibility and conformability
- Compensates for surface roughness very effectively
- Higher temperature resistance than doublecoated tapes
- Automated processing recommended for large areas
- More difficult to handle and to die-cut (edge picking) than double coated tapes (thread reinforced adhesive transfer tapes available for easier handling)



| 3M [™] Thin Bonding Tapes | Product no | Thickness (mm) | Temperature resistance (°C) short term | Weather resistance | Double coated tape / Adhesive transfer tape | Liner material | Colour | Certificates |
|--|--|-------------------|--|-----------------------|--|---------------------|----------|-------------------|
| General purpose solution | | | | | | | | |
| ldeal general purpose industrial thin bond tape for a wide range of applications and substrates such as: | <u>GPT-020</u> | 0.200 | 190 | +++ | Double coated tape with PP film | Polycoated kraft | | |
| Stainless Steel, HDPE, ABS, Acrylic PP, Polycarbonate, Aluminium, Glass | <u>GPT-020F</u> | 0.200 | 190 | +++ | Double coated tape with PP film | Filmic liner | | |
| Metals / Easy-to-stick surfaces | | | | | | | | |
| For Metal and High Surface Energy Substrates such as: | <u>467MP</u> | 0.058 | 200 | ++ | Adhesive transfer tape | Polycoated kraft | | UL 746C UL 969 |
| Aluminium, Powder-coated metals: Copper, Stainless steel and Zinc, Composites, Carbon Fibre, Ceramic, Acrylic, Fibreglass, | <u>467MPF</u> | 0.058 | 200 | ++ | Adhesive transfer tape | PET film | | UL 746C UL 969 |
| Plastics: Polycarbonate, Polyester, Polyimide, Polystyrene and Rigid Vinyl | <u>7952MP</u> | 0.058 | 200 | ++ | Adhesive transfer tape | Polycoated kraft | | UL 746C UL 969 |
| | <u>468MP</u> | 0.132 | 200 | ++ | Adhesive transfer tape | Polycoated kraft | | UL 746C UL 969 |
| | <u>7955MP</u> | 0.132 | 200 | ++ | Adhesive transfer tape | Polycoated kraft | | UL 746C UL 969 |
| | <u>7956MP</u> | 0.167 | 150 | +++ | Double coated Polycoated tape kraft | | | UL 746C UL 969 |
| Plastics / Hard-to-stick surfaces | | | | | | | | |
| Designed specifically to bond low surface energy substrates securely and reliably with high initial tack and high shear strength such as: | <u>9471LE</u> | 0.058 | 150 | ++ | Adhesive transfer tape / No carrier | Polycoated kraft | | UL 746C UL 969 |
| ABS Plastic, Nylon Coated Aluminium, Coated Paper, EPDM Rubber, Foam, Graphite, Metal Mesh, Painted Surfaces, PET Film, Coated Polycarbonate, Polypropylene, Powder-Coated Surfaces, Printed Metal, Rubber Polyurethane, SIS Rubber and Wood | <u>9472LE</u> | 0.132 | 150 | ++ | Adhesive transfer tape / No carrier | Polycoated kraft | | UL 696 |
| | <u>93010LE</u> | 0.100 | 150 | +++ | Double coated tape with PET film | Polycoated kraft | | UL 746C |
| | <u>93015LE</u> | 0.150 | 150 | +++ | Double coated tape with PET film | Polycoated kraft | | UL 746C |
| | <u>93020LE</u> | 0.200 | 150 | +++ | Double coated tape with PET film | Polycoated kraft | | UL 746C |
| | <u>9495LE</u> 0.170 150 ++ Double coated tap with PET film | | Double coated tape with PET film | Polycoated kraft | ullet | UL 696 | | |
| High temperatures / Harsh environments | | | | | | | | |
| Delivers in high temperatures and other challenging environments: | <u>F9460PC</u> | 0.058 | 260 | +++ | Adhesive transfer tape | Polycoated kraft | | UL 746C |
| Short-term temperature tolerance up to 260 °C Operating temperature tolerance | F9469PC | 0.132 | 260 | +++ | Adhesive transfer tape | Polycoated kraft | | UL 746C |
| of up to 150 °C • Durable adhesive is chemical, UV and solvent resistant | <u>F9473PC</u> | 0.269 | 260 | +++ | Adhesive transfer tape | Polycoated kraft | | UL 746C |
| Print your tape | | | | | | Krant | | |
| 3M™ Printable UV Curing Pressure Sensitive Adhesive SP7202. This unique UV curable liquid can be printed with robot dispensing in the | 007000 | | | | Pressure sensitive | | | |
| required shape and after UV curing it's a Pressure Sensitive Adhesive (PSA) with the performance of an adhesive transfer tape. | <u>SP7202</u> | Variable | n/a | n/a | adhesive | No liner | | |
| | | | | | | | | |
| | | | | | | () Tra | insparen | t 🔵 White |
| Product overview | | | | | | | | |

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Looking for a reclosable solution?

Design flexibility

- Lightweight and low profile
- Fastener is hidden beneath the surface and does not interfere with the integrity of the design
- No holes or traditional fastener marks



Reliable performance

- Strong, interlocking mushroom-shaped heads connect with an audible "snap"
- Peel apart to open
- Durable up to 1,000 openings and closings before losing 50% of original tensile strength
- Interlocking mushroom-shaped heads have 5X the tensile strength of hook-and-loop products

Noise reduction through vibration damping

 The viscoelastic properties of 3M[™] Acrylic Foam Tape in combination with the polyolefin mushroom heads of 3M[™] Dual Lock[™] dampens vibrations

Quick and easy to Install

- Adhesive sticks on contact to a variety of materials without special tools
- No drilling, screwing, sewing
- Non-adhesive product also available

Customize for your application

- · Mix and match stem densities for the ideal closure strength
- · Choose from a variety of widths and adhesive options
- Application and maintenance ease

3M[™] Dual Lock[™] Reclosable Fasteners

When you need a strong, reliable, yet removable closure or attachment, 3M[™] Dual Lock[™] Reclosable Fasteners are the simple alternative to traditional fastening methods such as screws, nuts or bolts. A wide range of products are available to meet your specific requirements, including temperature, moisture, UV and flame resistance. Mix and match products to achieve the required holding strength.

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62 Stems/ 40 Stems/ 26 Stems/ cm² cm² cm²

| 3M [™] Dual Lock [™] | Product no | Engaged thickness (mm) | Adhesive type | Stem density (per cm²) | Holding power | Temperature resistance (°C) | Closure cycle life | Indoor/ outdoor use | Colour |
|---|---|------------------------------|---------------------|---------------------------|------------------|--------------------------------|--------------------------|------------------------|------------------|
| For plastic materials | | | | | | | | | |
| Bonds to a variety of substrates including: | <u>SJ3540</u> | 5.7 | Rubber | 40 | 9 | 49 | 1,000 x | Indoor | \bigcirc |
| Polypropylene | | | | | | | | | |
| Polyethylene | <u>SJ3541</u> | 5.7 | Rubber | 62 | 9 | 49 | 1,000 x | Indoor | \bigcirc |
| | <u>SJ3542</u> | 5.7 | Rubber | 26 | 9 | 49 | 1,000 x | Indoor | \bigcirc |
| Ideal for multi-material joints | | | | | | | | | |
| Bonds to a variety of substrates including: | | | Clear | | | | | Indoor & | \sim |
| Metals | SJ3550CF | 5.7 | acrylic | 40 | 10 | 93 | 1,000 x | outdoor | \bigcirc |
| Glass and | | | | | | | | | |
| Plastics (such as acrylics, polycarbonate and ABS) | <u>SJ3551CF</u> | 5.7 | Clear acrylic | 62 | 10 | 93 | 1,000 x | Indoor & outdoor | \bigcirc |
| Try mating different combinations of Type 170, Type 250 or Type 400 to achieve the desired strength profile | <u>SJ3552CF</u> | 5.7 | Clear acrylic | 26 | 10 | 93 | 1,000 x | Indoor & outdoor | \bigcirc |
| For transparent materials | | | | | | | | | |
| A clear version for when a translucent appearance is needed on: | | | | | | | | | |
| Metals | 0.10500 | - - | Clear | 10 | 10 | 10.4 | 1000 | Indoor & | |
| • Glass | <u>SJ3560</u> | 5.7 | acrylic | 40 | 10 | 104 | 1,000 x | outdoor | |
| Plastics (such as acrylics, polycarbonate and ABS) | | | | | | | | | |
| For powder-coated surfaces | | | | | | | | | |
| For joining: | | | Modified | | | | | Indoor & | |
| Low-energy materials such as | <u>SJ3870</u> | 6.1 | acrylic | 40 | 10 | 82 | 1,000 x | outdoor | \bigcirc |
| Powder coatings and many plastics | | | | | | | | | |
| High-energy materials such as | | | | | | | | | |
| Metals (including steel) | <u>SJ3871</u> | 6.1 | Modified acrylic | 62 | 10 | 82 | 1,000 x | Indoor & outdoor | \bigcirc |
| A combo of low & high-energy materials | | | acrync | | | | | outdoor | |
| Thin bondlines | | | | | | | | | |
| Half the thickness and lower weight limit of standard 3M [™] Dual Lock [™] Reclosable Fasteners. Low surface energy adhesive bonds to: • Metals | <u>SJ4570</u> | 2.31 | Modified acrylic | 109 | 7 | 70 | 150 x | Indoor & outdoor | O |
| Powder-coated paints | | | aciyiic | | | | | 0010001 | |
| Plastics (broad range) | | | | | | | | | |
| Hook & loop options | | | | - | | | | | |
| Half the thickness and lower weight limit of standard 3M [™] Dual Lock [™] Reclosable Fasteners. Low surface energy adhesive bonds to: | <u>SJ3526</u> (Hook) & <u>SJ3527</u> (Loop) | 3.6 | Rubber | | 4 | 49 | 5,000 x | Indoor | $\bigcirc ullet$ |
| Metals | | | | | | | | | |
| Powder-coated paints Plastics (broad range) | <u>SJ3571</u> (Hook) & <u>SJ3572</u> (Loop) | 3.6 | Acrylic | | 4 | 93 | 5,000 x | Indoor & outdoor | $\bigcirc ullet$ |
| | | | | | | | | | |



e / Mounting anel and trim





OBlack 🔿 Transparent 🔵 White

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Product overview

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3M[™] Scotch-Weld[™] Structural Adhesives

3M[™] Scotch-Weld[™] Structural Adhesives

These adhesives are formulated to provide high strength, durability, and long-term reliability in load-bearing applications.

- Structural adhesives have the highest load bearing capability (compared to other types of adhesives)
- Excellent environmental and chemical resistance
- Generally formulated to be 100% solids (no solvent emissions to deal with)
- Come in a range of cure times and properties.
- Cure in an irreversible process which helps provide excellent temperature and solvent resistance.
- They do not need access to air to dry; nor moisture (like one-part silicone and polyurethane sealants); and thus, have unlimited depth of cure.

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Stronger Bonds
Toughened ad

Toughened adhesives absorb shock for durable bonds





Enhance Productivity

• Variety of cure rates to match your process needs

- Build faster with minimal surface prep
- Withstands high process temperatures

Accurate and Easy

- Control dispensing with 3M[™] EPX[™] exact proportioning and mixing applicators
- Match your processing needs with a range of viscosities and flow rates
- Manage large applications with automated dispensing equipment

| | Product no | Approx. open time* at 24°C (min) | Approx. time to handling strength at 24°C (min) | Approx. viscosity at 24°C (mPas) | Floating roller peel at 24 °C (N/cm) | | lap she MPa 24°C | | Mix ratio (Volume) B:A | Colour | Certificates |
|--|---|---|--|---|---|---------------------|------------------------|----|------------------------------|------------|-----------------------|
| Metal bonding | | | | | | | | | | | |
| Bonds to bare, slightly oily metals | <u>DP8405NS</u> | 5 | 15 | 70,000 | 89 | 18 | 28 | 6 | 10:1 | | |
| Pre-powdercoat bonding of active metals High-strength | <u>DP8407NS</u> | 7 | 24 | 20,000 | 89 | 23 | 31 | 10 | 10:1 | | <u>EN 45545</u> UL |
| Durable bonding of metals, plastics, and composites | DP8410NS | 10 | 25 | 70,000 | 89 | 25 | 28 | 6 | 10:1 | | UL |
| Excellent impact resistance | | 25 | 50 | 70,000 | 89 | 26 | 26 | 6 | 10.1 | | EN 45545 |
| Easy dispensing | <u>DP8425NS</u> | 25 | 50 | 70,000 | 09 | 20 | 20 | 0 | 10:1 | | <u>EIN 43343</u> |
| Plastic bonding | | _ | | | | _ | | _ | | \sim | |
| Bonds to low surface energy plastics Low Odour | <u>DP8005</u> | 3 | 180 | 25,000 | n/a | 6 | 14 | 3 | 10:1 | \bigcirc | |
| Medium viscosity | <u>DP8005</u> | 3 | 180 | 25,000 | n/a | 5 | 1 5 | 3 | 10:1 | | |
| High-strength bonding for plastics, and other challenging surfaces | <u>DP8010</u> | 10 | 60 | 20,000 | n/a | 19 | 19 | 3 | 10:1 | | |
| Multi-material bonding | | | | | | | | | | | |
| Bond most composites and dissimilar substrates | <u>DP6310NS</u> | 9 | 45 | Non-sag | 36 | 24 | 25 | 6 | 1:1 | | <u>EN 45545</u> |
| Non-sag formulation Superior strength and versatility for even the most | | | | paste Non-sag | | | | | | | |
| Superior strength and versatility for even the most challenging surfaces | <u>DP6330NS</u> | 30 | 120 | paste | 36 | 25 | 25 | 7 | 1:1 | | <u>EN 45545</u> |
| High-temperature and high-humidity | | | | | | | | | | | |
| Ideal for high temperature and high humidity applications: structural strength at 85°C | <u>DP8910NS</u> | 10 | 16 | 45,000 | 18 | 15 | 22 | 11 | 10:1 | \bigcirc | UL |
| The flexible | | | | | | | | | | | |
| High elongation up to 200% | 550010110 | 10 | 10 | | 10.0 | ~ . | _ | - | 10.1 | | <u>EN 45545</u> |
| • Excellent bonding strength, durability, and flexibility | <u>DP8610NS</u> | 10 | 18 | 130,000 | 100 | 24 | 7 | 2 | 10:1 | \bigcirc | UL |
| Limits bond line read-through Non-flammable classification | DDOCOENC | 23 | 28 | 130,000 | 100 | 24 | 7 | 2 | 10:1 | \bigcirc | |
| Low odor formulation | <u>DP8625NS</u> | 23 | 20 | 130,000 | 100 | 24 | / | 2 | 10:1 | \bigcirc | |
| The tough | | | | | | | | | | | |
| Excellent environmental resistance | <u>DP420</u> | 20 | 120 | 30,000 | 125 | 31 | 31 | 9 | 2:1 | | UL |
| Toughened epoxy for high impact strength Excellent fatigue performance | <u>DP420NS</u> | 20 | 120 | 180,000 | 107 | 31 | 31 | 9 | 2:1 | \bigcirc | UL |
| For heavy-duty industrial applications | <u>7240 FR</u> | 45 | 360 | 120,000 | 92 | 18 | 27 | 12 | 2:1 | \bigcirc | <u>EN 45545</u> |
| | <u>DP460</u> | 60 | 120 | 30,000 | 142 | 31 | 31 | 5 | 2:1 | | UL |
| The fast | <u>DP490</u> | 90 | 240 | 90,000 | 60 | 25 | 31 | 14 | 2:1 | 0 | <u>EN 45545</u> |
| Fast rate of strength build | | | | | | 30 | | | | | |
| Fast rate of strength build Low temperature performance | <u>DP8705NS</u> | 5 | 6 | 80,000 | 60 | (at | 16 | 4 | 10:1 | \bigcirc | |
| Excellent impact and peel strength | | | | | | -40°C) | | | | | |
| Excellent bonding strength, durability, and impact resistance, making it ideal for demanding applications where reliability is crucial | <u>DP8710NS</u> | 10 | 13 | 80,000 | 60 | 30 (at -40°C) | 16 | 4 | 10:1 | \bigcirc | UL |
| The resistant | | | | | | | | | | | |
| Excellent resistance to heat, water, and chemicals | | | | | | | | | | | |
| Low temperature performance: to -40 °C | 5 5 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7 | | | | | 30 | | | | | |
| Non-corrosive to active metals Non-flammable classification | <u>DP8725NS</u> | 23 | 25 | 80,000 | 60 | (at -40 °C) | 16 | 4 | 10:1 | \bigcirc | |
| Low odour formulation | | | | | | | | | | | |
| Product overview | | | | | | | Black | Gr | een () Ti | anspare | nt 🔵 Off-Wh |

Large surface lamination Small joint assembly



Mounting and trim







Free Samples Contact us to request a free sample.



Online product selector For more detailed information, please visit our online selector

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Convert your 3M parts | Enhance your process

Choosing tapes in converted shapes offers a range of benefits, including precision, cost savings, enhanced productivity, and improved overall product performance. It's a strategic choice for businesses aiming to optimize their processes and achieve high-quality results.



Benefits of converted parts.

1. Precision & customization: Tailored solutions with high precision and versatility.

2. Efficiency & consistency: Streamlined assembly, reducing labor and ensuring consistent results.

- **3. Waste reduction & cost-effectiveness:** Minimized material waste, cost savings, and eco-friendly production.
- **4. Enhanced performance & ease of application:** Optimal adhesive contact for improved performance and user-friendly installation.
- 5. Versatility & quality assurance: Applicable across industries, meeting diverse requirements with quality control measures.

Dispensing solutions

There are many benefits to automating, including optimizing the use of labor, decreasing costs and increasing production, worker safety, and quality.

Visit us online: 360° Tour through the 3M Bonding Process Center. Book your visit today: Schedule your virtual or on-site visit to the 3M Bonding Process Center Bonding automation handbook: Handbook to give you a basic understanding of automating your tape and liquid adhesive processes.

Learn more







Basic Tools

Simple basic tools to improve the application process, without automation.



Process Assist

Simple mechanical

or electrical tools to

increase productivity

of manual application.



Tape



Fixed Automation

Mostly automated operation designed to perform one specific assembly process with the goal of improving accuracy, speed, or labor



Tape

Flexible Automation

Mostly automated operation designed to perform more than one assembly process or, to be re-purposed later. Often incorporates robotics.

Benefits of automating liquid adhesive or tape applications.

Assembly

- Increase quality
- Improve aestetics
- Increase consistency and accuracy of placement

Process

- Improve traceability
- Decrease operator fatigue
- Difficult to find labor/ Labor shortage
- Increase safety
- Decrease takt time
- Increase throughput
- Complexity of operation

Cost

- Improve operator efficiency
- Reduce high-cost
- labor rate
- Reduce work in process
- inventory

Test your bonds Get support from the 3M lab team

Our state-of-the-art facilities offer a myriad of tests to ensure the reliability and strength of tapes and adhesives. From shear and peel strength assessments to environmental durability testing, we tailor our analyses to meet your specific needs. Trust 3M to deliver meticulous testing, providing you with the assurance that your bonds will stand the test of time. Explore our comprehensive testing services and elevate the quality and reliability of your projects.

Learn more

Testing capabilities



Tensile, adhesion & cohesion strength

- Tensile & elongation
- Dynamic shear
- Static shear
- Adhesion (Peel)

Climatic & environmental exposure

- Accelerated weathering
- Climate chamber
- Saltspray
- Weathering
- Deep freezer



Mechanical strain

- Abrasion resistance
- Shear resistance •
- Surface test •
- Surface cutting



Chemical resistance

- Automotive liquids, wax, diesel, fuel, oil, water etc.
- Flammability



Impact resistance

Pendulum

Miscellaneous

- Thickness
- Scale
- Surface energy
- Press





Simulation-driven design using FEA

Learn more



What is finite element analysis (FEA)?

FEA is a virtual engineering tool used to predict how structures behave under different conditions.

How does it work?

Breaks down complex systems into smaller elements for detailed analysis. Predicts quantities like stresses and strains.

Material data cards in FEA

Utilizes material data cards representing the material behavior in the simulation.

Key benefits

Enables rapid and cost-effective exploration of design iterations. Identifies weaknesses and ensures designs meet safety and performance standards.

Optimizing design

Valuable during the design phase to refine and enhance product reliability.

Cost and time savings

Reduces the amount of physical prototypes, saving both time and resources.

Why FEA matters

Informs decision-making, leading to more efficient and reliable designs.





How to start your Project.



Scan or click the QR code and complete the form. Our experts will contact you shortly and help you to get the solution your are looking for.

Visit us online.

Visit us online and learn more about bonding solutions.



Ready to bring your knowledge to the next level?

Visit our webinar platform and learn more about:

- Material bonding
- Products
- Technical testing
- Educational videos
- Industry examples



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