

Sustainability for Industrial Bonding

Helping you meet your sustainability goals

Industrial Adhesives and Tapes Division's Approach to Sustainability

Guided by our purpose-driven mindset, 3M is committed to innovating to decarbonize industry, accelerate climate solutions and improve our environmental footprint. We seek to help our customers address their sustainability challenges with high-performing adhesive and tape solutions by offering a science-forward approach to reducing waste and greenhouse gas emissions in our customers' supply chains.

Our Strategy



Solutions Oriented

We collaborate with customers to develop solutions for their specific product applications, helping them achieve superior performance and their sustainability goals.



Science Forward

We have a portfolio of products designed with circularity in mind, from alternative material inputs to better options for end-of-life reuse and recyclability. Every new product must have a sustainability value commitment.



Purpose Driven

Many of our products are manufactured in such a way to help reduce their carbon footprint, waste and the amount of volatile organic compounds (VOCs).

How We Drive Positive Impact



Lowering Volatile Organic Compounds (VOCs) and Other Targeted Substances



Reducing Use of Virgin Fossil-Based Materials



Minimizing Waste and Energy Use



Enabling Recycling, Reuse and Repairability

Lowering VOCs and Other Targeted Substances

How We Are Doing This

Solvent-free adhesive coating process

- Many of our tapes are made with a solvent-free adhesive coating process that doesn't use solvents or water.
- Benefits include no emission of solvents or, no need for solvent recovery, which is an energy intensive process.

Low volatile organic compound (VOC) products

- Our commitment to continuous improvement and new processes enables 3M, where possible, to lower VOCs in our products.
- 3M offers a variety of industrial adhesive and tape products that are low VOC for use in many different industries.

Alignment with local regulations and close monitoring of other targeted substances

- 3M monitors different industry groups and governments around the world to understand regulations - existing and new, and we strive to meet or exceed all relevant global regulations.
- In addition to lowering VOCs in our products, 3M is committed to reducing solvent by using more solvent-free adhesive coating tape processing and reducing the use of halogens and heavy metals in our products.

Featured Products



3M™ Low VOC Double Coated Tissue Tape 99015LVC

- Designed for low VOC emissions, ideal for automotive interiors
- Features an acrylic adhesive tested to JAMA and VDA278 low VOC requirements



3M™ Scotch-Weld™ Low Odor Acrylic Adhesive 8700 Series

- Low odor structural acrylic adhesive, non-flammable classification
- As a result of improved formulation, there is no GHS08 Health Hazard Classification

Reducing Use of Virgin Fossil-Based Materials

How We Are Doing This

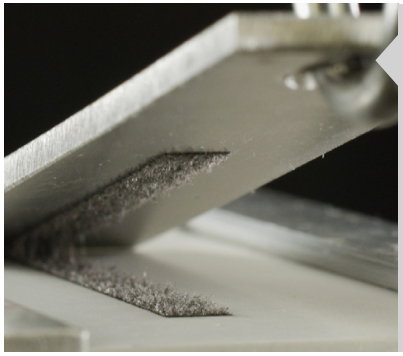
Bio-based materials

- Bio-based materials are derived from renewable sources, like plants. The bio-based content of a product can be confirmed using radiocarbon analysis (ASTM D6866).
- 3M offers several tape products today that contain bio-based materials, and we are continuing to work on the development of other bio-based bonding solutions.

Packaging solutions

- 3M has many products available with paper liners, offering alternatives to plastic liners.
- 3M is committed to responsible forest products sourcing. 3M created a policy that is designed to ensure all virgin wood fiber going into our wood-based products and packaging comes from sources that protect forests and respect the rights of workers and people who live in or may depend on forests for their livelihood.
- 3M has packaging solutions for customers who want to reduce the use of shrink wrap during palletization or move to paper packaging systems, like in the electronics industry.

Featured Products



3M™ VHB™ Tape 5981

- Produced via a solvent-free adhesive coating process
- Fewer fossil-based raw materials, made with 35% bio-based content



Scotch® Stretchable Tapes 8886 and 8884

- You can reduce up to 95% of the waste of packaging materials compared to other alternative methods like plastic wrap
- Fully recyclable low density polyethylene (LDPE) material

Minimizing Waste and Energy Use

How We Are Doing This

Helping reduce waste

- Automated liquid adhesive and tape dispensing is more efficient, wastes less material and may not require liners for tapes.

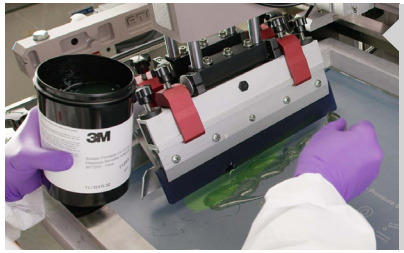
Finite element analysis (FEA) for 3M adhesives and tapes

- 3M Material Data Cards (MDCs) provide data you can use to predict performance and verify 3M Adhesive and Tape bonding applications in product designs through FEA modelling and simulations. Leveraging the data from the MDCs cuts down on the prototypes design engineers have to build, thus reducing waste.

Helping minimize energy use

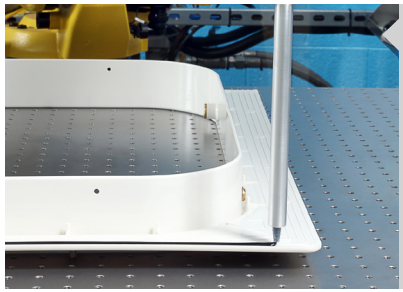
- Industrial tapes and adhesives provide key benefits over other industrial assembly methods including use of thinner, lightweight materials for enhanced aesthetics, performance and to help reduce energy use.
- Lightweighting is a mega-trend across many industries. In the transportation industry for example, reducing component weight can help to increase fuel efficiencies.

Featured Products



3M™ Screen Printable Pressure Sensitive Adhesive SP7202

- This additive manufacturing process produces parts in the desired shape, eliminating the need for die-cutting and associated waste



3M™ Scotch-Weld™ Epoxy Adhesive DP420NS

- A two-part epoxy structural adhesive that provides strength to meet demanding bonding challenges
- Reduce waste via automated dispensing, no cartridge waste



3M™ VHB™ Tapes and 3M™ Scotch-Weld™ Structural Adhesives

- Provides design flexibility by eliminating the need for mechanical fasteners like rivets, screws, bolts and welds
- Allows the use of thinner, lighter weight and dissimilar materials

Enabling Recycling, Reuse and Repairability

How We Are Doing This

Reposition during assembly process

- Some 3M tapes and liquid adhesives allow people to adjust the bonding locations during assembly.
- Repositionability is important for electronic device components, automotive display bonding and other applications where precision placement of parts is required.

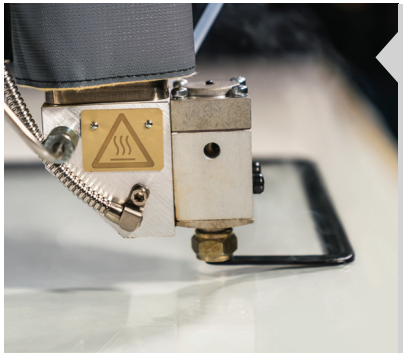
Reworkability for repair

- Some 3M tapes and liquid adhesives include mechanisms for reworkability, such as stretch release technology, which allows for easy and clean removal, reducing scrap, waste and rework.

Easy disassembly for end-of-life recycling

- 3M tapes and adhesives can help users recover and recycle important components, like precious metals, at the end of product life.
- Some 3M tapes and adhesives include mechanisms for debonding, such as heat or stretch release.

Featured Products



3M™ VHB™ Extrudable Tape

- Stretch release technology allows for easy and clean removal, reducing scrap, waste and rework
- Offers other sustainability benefits such as no liner waste or die-cut waste as with other tapes



3M™ Dual Lock™ Reclosable Fasteners

- Firmly attaches items, but is able to be removed for maintenance, refurbishment or replacement

At 3M, We Apply Science to Improve Lives

Our purpose is to unlock the power of people, ideas and science to reimagine what's possible. We offer our customers a science-forward approach to meeting their sustainability goals and improving their environmental impact.

Contact your 3M sales representative for more information and visit 3m.com/sustainability to learn more about our sustainability commitment.

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