

TECHNICAL ADHESIVE TAPES TRUE OR FALSE

BEWARE OF PRECONCEIVED IDEAS



ADHESIVE TAPES: HAVE YOU CONSIDERED THEM?



Competitiveness, bonding reliability, structural weight reduction and design quality are major challenges for many manufacturers or professionals of the building industry.

Adhesive tape's simple appearance belies the fact that it includes state-of-the-art technologies that can be applied in many applications.

It consists of a backing material with an adhesive coating that adheres simply by applying pressure at room temperature and can be used on a wide range of substrates.

Adhesive tapes provide an efficient, cost-effective and durable solution for many applications: fasten, protect & dampen, hide, seal, mark & indicate, etc.

This document is intended for professionals looking for new, innovative solutions to better meet their customers' requirements.

Go beyond preconceived ideas and discover all the potentialities of technical adhesive tapes!

This document is published under the aegis of the SNCP (Syndicat national du caoutchouc et des polymères - French rubber manufactures' association), a structure bringing together adhesive tape manufacturers: 3M, Lohmann, Nitto, Scapa, Sicad and Tesa.

DOUBLE-SIDED ADHESIVE TAPE IS A PROVEN ALTERNATIVE TO MECHANICAL FASTENERS SUCH AS WELDS, RIVETS, SCREWS?



True, due to their structure, some double-sided adhesive tapes provide higher breaking strengths than other fasteners.

- Some double-sided adhesive tapes can withstand high static and dynamic stresses while limiting the risk of breakage through their better distribution of weight stresses.
- They can be designed to withstand weathering and temperature variations, and can absorb the differential expansion of the joined materials.

THE USE OF ADHESIVE TAPE IS MORE EXPENSIVE THAN GLUE OR MECHANICAL FASTENERS?





FALSE

False, choosing the right adhesive tape saves costs by simplifying the manufacturing process.

- Fewer manufacturing stages: e.g. elimination of drilling, deburring, etc.
- Elimination of peripheral tasks at the workstation: e.g. cleaning of glue spraying heads, etc.

THE FITTING OF ADHESIVE TAPE IS NECESSARILY A MANUAL OPERATION?





FALSE

False, adhesive tape can be readily included in semi-automatic or automatic application processes to ensure optimum productivity

- Available in long reels, it is ideal for continuous manufacturing processes when combined with online fitting systems.
- Adhesive tapes can be changed according to the final shape of the parts to be joined. They can be applied by a robotic process.

THE USE OF ADHESIVE TAPE REDUCES WORKPLACE SAFETY RISKS?





TRUE

True, the use of adhesive tape eliminates a number of constraints.

- The use of adhesive tape does not require the use of hazardous machinery.
- Ready to use adhesive tape eliminates the need for cutting, welding or any handling of toxic products, etc.

ADHESIVE TAPE CAN ONLY ADHERE TO MATERIALS OF THE SAME TYPE?





FALSE

False, one of the main advantages of double-sided adhesive tape is its ability to join different materials:

- Adhesive tape easily bonds materials that conventional weld-type fasteners cannot join: e.g. composite material/metal.
- Some adhesive tapes absorb thermal expansion, which is not the case for mechanical fasteners (rivets, screws, etc.).

THE USE OF DOUBLE-SIDED ADHESIVE TAPES REDUCES THE FINAL WEIGHT OF THE BONDED STRUCTURE?



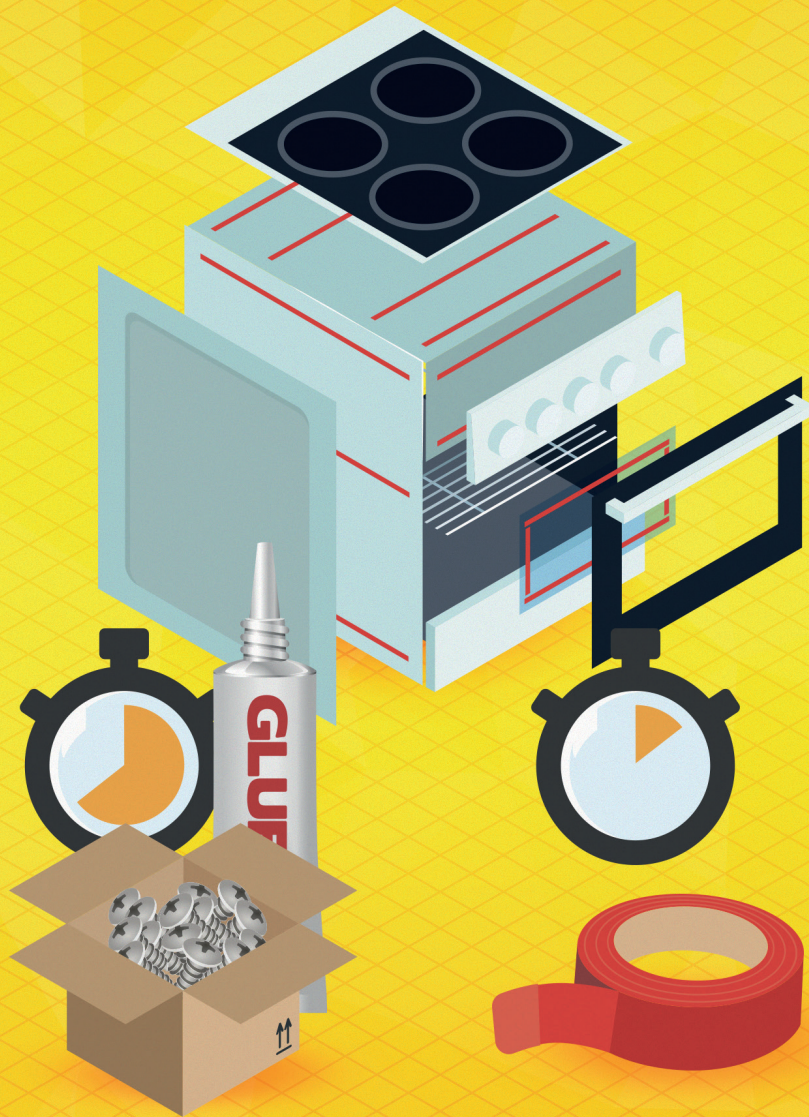


TRUE

True, it provides a clear advantage in terms of weight reduction.

- It allows the bonding of light, diverse materials.
- It weighs much less than mechanical fasteners: threaded fasteners, etc.

FASTENING USING ADHESIVE TAPE IS IMMEDIATE?





TRUE

True, there is no drying time. Fastening is instantaneous. It provides for continuity of production and increased productivity.

- As adhesive tape is pressure sensitive, the initial adhesion provides sufficient performance for handling and processing the joints made
- However, to obtain final performance and assess the strength of bonded substrates, a 48 to 72 hour delay is often required.

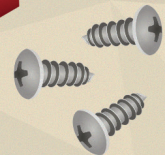
A BOND MADE WITH ADHESIVE TAPE IS SEALED?



True, adhesive tape creates a permanent joint providing protection from outside elements

- Fastening by adhesive tape is uninterrupted unlike joining by riveting, spot welding, etc.
- The formulation of double-sided adhesive tape provides this sealing.

BONDING USING ADHESIVE TAPE CAN BE INVISIBLE?





TRUE

True, compared to rivets, screws or welds, joining using adhesive tape is generally invisible.

- It improves appearance.
- Its compactness provides considerable design freedom.

FASTENING BY ADHESIVE TAPE PROVIDES SHOCK ABSORPTION?





TRUE

True, adhesive tape's structure allows energy to be absorbed and dispersed over the fastener's entire length.

- Unlike fastening by a screw or a rivet that creates an area of weakness (incipient failure, corrosion), bonding by adhesive tape maintains the material's integrity and provides very high shock resistance.

PRODUCTS BONDED BY ADHESIVE TAPE CAN ONLY BE USED INDOORS?





FALSE

False, some adhesive tapes fully withstand UV radiation, temperature variations and chemical attacks and are designed for outdoor use:

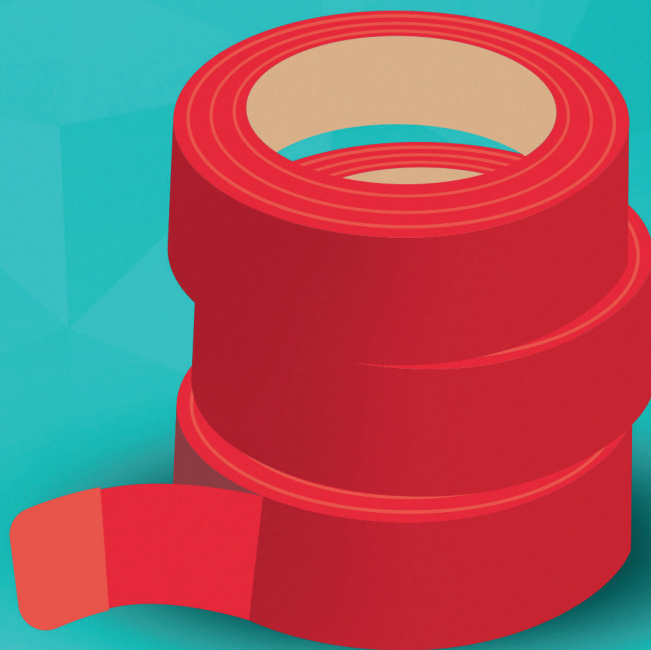
- Commonly used tests confirm their aging resistance.
- There are many outdoor applications: transport, building, renewable energy, signaling, etc.

ADHESIVE TAPE IS OMNIPRESENT IN OUR DAILY ENVIRONMENT?



True, after almost 100 years of development, adhesive tapes are undergoing remarkable growth, through continuous R&D investments, in both industrial and domestic applications.

- In your car: Fastening of decorative parts, emblems, door seals, rear-view mirrors and rain sensors.
- In your house: bonding of joints for insulating doors and windows, bonding of insulation membranes, fastening of solar panels and insulation of rolling shutters.
- In your electronic devices: inside your mobile phone, your computer, your TV, household appliances, etc.



**TAPES ARE (ALMOST) EVERYWHERE,
IT'S UP TO YOU TO INVENT THEIR FUTURE!**



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