

# adhere academy: how to prepare two-part cartridges for dispensing



Many adhesives, sealants, and potting materials are packaged in two-part side-by-side cartridges, which are convenient for material application on the production line or in the field. Cartridges don't require you to measure out materials in the correct ratio, and by adding the manufacturer's recommended static mixing nozzle, fully mixed and homogeneous material can be dispensed with minimal mess.

Two-part cartridges can be used in [handheld, manual or pneumatic application guns](#), incorporated into simple [time/pressure dispensing systems](#), or taken right up to complete robotic [archytas series integrations](#). These systems can all utilise the same cartridge packaging and mixing nozzle, making production upscaling from manual to fully automated relatively straightforward.

We have a few tips to share to ensure you get the best from your two-part cartridge dispensing process. It's all in the preparation! Cartridges should be conditioned to ambient temperature. Variations in temperature can have an effect on the viscosity that could lead to process variability if the material is colder or warmer than expected.

At the point of manufacture, every effort is made to produce the cartridge free of air and with correctly apportioned amounts of material in each side. It is still essential that steps are taken to remove any

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potential remaining entrapped air, and to ensure a balanced flow of both material components from the outlets. During the conditioning phase, cartridges should be kept upright (cap up) to allow any air to rise to the top.

Keeping the cartridge upright, attach it to the applicator, remove the cap, and purge slowly to remove any air and to observe material from both outlets of the cartridge flowing freely and together – a process referred to sometimes as ‘burping’. Attach the static mixing nozzle, and purge once again through the nozzle, closely observing the output for air-free homogeneity – typically discarding the first 1-2ml you dispense. Then you’re ready to go!

These tips are available in our mixing guide, [\*\*\*Instructions for Side-by-Side Syringe Cartridges.\*\*\*](#) Please use this for operator training and as a reminder at workstations or field service units.

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### Before you start

Condition the material at ambient temperature, orientating cartridge vertically (cap up) to allow any air to rise to the cap end. Variations in temperature can have an effect on the viscosity if the material is colder or warmer than expected.

1. Read and follow the health & safety instructions on the adhesive packaging and material safety data sheet. Use the appropriate PPE. Good practice would be to wear eye protection and gloves when handling any adhesive. Understand the working life of the material as well as the cure time.
2. Remove the cartridge from the packaging and place in the **dispensing gun**.
3. Holding the cartridge vertical with the cap at the top, unscrew the cap or break the seal.



4. Gently squeeze the dispensing gun trigger, and make sure that both of the material components are being pushed out evenly. Wipe off any excess material, and screw on the static mixing nozzle.
5. By squeezing the trigger, dispense the material components through the static mixing nozzle until they reach the end. It is recommended that the first 1-2ml from a new mixer be discarded. By the use of the manufacturers' specified mixing nozzle, the material now dispensed from the tip will be adequately and properly mixed for use.
6. It is acceptable to store partially used cartridges with the static mixing nozzle attached. A new one will be needed next time the cartridge is used. Alternatively, remove the used static mixing nozzle, wipe off excess material and replace cap, being very careful to avoid any cross contamination.



### Disposal

Discard cartridges and any unused material in line with your local hazardous waste disposal guidelines.

Instructions for Side-by-Side Double Syringe Cartridges

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Supplied by:



INTERTRONICS

12a Station Field Industrial Estate, Banbury Road, Kidlington

Oxfordshire England OX5 1JD

t 01865 842842 e [info@intertronics.co.uk](mailto:info@intertronics.co.uk)

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