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SUPPORTED BY

Finishing of joint sealants

FACTSHEET



GLOBAL LEADER IN ADHESIVE TECHNOLOGIES

Bostik is one of the largest adhesive and sealant companies. Worldwide, we employ some 6,000 people in 50 countries across five continents. Our customers come from diverse markets, most notably the industrial manufacturing, construction and consumer sectors.

SMART INNOVATIONS

Our smart identity is underpinned by innovation. We pursue innovation vigorously, applying the latest technological advances to developing 'smart' adhesives. Our archives are laden with examples of Bostik technologies that have disrupted markets - from potato starch-based wallpaper paste to elastic attachment adhesive for diapers.

Today, our commitment to innovation is as strong as ever. We innovate with our customers through a global R&D network, comprising three international Smart Technology Centres and 8 regional centres. And we differentiate our business through this investment.



Finishing of joint sealants

GENERAL INFORMATION

The following is important:

- A. 1. Processing equipment
- B. 2. Application method
- C. 3. Finishing method

1. PROCESSING EQUIPMENT

The equipment is meant for the packaging in which the sealant is supplied. Most common packaging is:

- Cartridges (plastic or aluminium)
- Alu-foil sausages

Special caulking guns either, powered by hand or pressured air, are available. For both of the packages electrically powered (battery) caulking guns are also available. The caulking guns have a wide range of quality and prices, where choice is mostly determined by intensity of use.

HAND CAULKING GUNS FOR 310 ML CARTRIDGES

With these guns the cartridge is simply inserted to the caulking gun. By pulling the trigger a push rod comes forward, releasing the sealant from the cartridge. For optimal functioning the plate on the push-rod must have good contact with the plunger in the cartridge, ensuring steady distribution of pressure, and holding the plunger straight in the cartridge. While applying maintain normal pressure. Do not increase too much as the sealant can be pressed back between the wall of the cartridge and the plunger.

HAND CAULKING GUNS FOR ALU-FOIL SAUSAGES

Keep the inside of these caulking guns very clean, so no dirt can be stuck between the plunger and the wall of the closed caulking gun. Pressured air guns for cartridges of 310 ml. Advantage of working with pressured air is the low effort needed for dosing the sealant. A disadvantage is the fact a compressor is needed, which needs electrical power, and must be moved all over the construction site. The maximum operational pressure is 6 bar/87 PSI. With higher pressure the cartridge may be deformed allowing air between the cartridge



and the plunger. This will result in sizzling release of air mixed with the sealant. Too high a pressure might also result in the plunger being pressed out of the rear of the cartridge when pressure is released.

PRESSURED AIR GUNS FOR ALU-FOIL SAUSAGES

In general these caulking guns can bear a maximum of 9 bar/130 PSI. When higher pressure is applied air can leak between the plunger and the wall of the gun. This will result in sizzling release of air mixed with the sealant. This “false” air also pressures the plunger, resulting in the sealant leaving the gun slower. Leakage of air along the plunger can also occur when the inner wall of the gun is dirty or worn out. In this case, cleaning of the gun or replacing the plunger is needed. To prevent disadvantages caused by leaking air it is recommended to make two small holes in the wall of the gun closest possible to the nozzle, enabling the “false” air to escape.



Once the cartridge or sausage is opened and placed in the gun, the nozzle is cut at the right width. Normally the width of the nozzle should correspond to the width of the joint. The nozzle is cut at an angle of 45°, as the caulking gun should be held at this angle during application.



Incorrect

Correct

Apply the sealant with care. It is important to fill the entire joint. This can be done by applying sufficient sealant to the back of the joint or the backer rod. This causes the sealant to be pressed to both sides of the joint, creating a good surface for bonding between sealant and joint.

During application check if the joint is fully filled by paying attention the sealant build up at the tip of the nozzle. To create a tight joint it is important the sealant is applied tightly to the sides of the joint. For cornered joints, often found a lot in sanitary rooms, this means the nozzle must permanently be in contact with both surfaces, resulting in a tight joint. When applied this way masking tape is not needed.

Specifically important for glazing applications is to completely fill the glazing joint of 4 mm x 6 mm with sealant. If insufficient sealant is used the risk is that the sealant will not have enough contact with the glazing bead or the window frame. In these areas bonding can break, and sealant will release.



Once applied the sealant surface must be finished smoothly. This can be done with Bostik FINISHING SOAP.

The surface of the sealant and adjacent materials are then moistened with Bostik FINISHING SOAP. Depending on the type of joint the finishing can be done as shown below:

FLAT FULL JOINTS

With moistened putty knife (Bostik FINISHING SOAP).



RECESSED JOINTS

With moistened wooden spatula (Bostik FINISHING SOAP).



CORNER JOINTS

With moistened wooden spatula (Bostik FINISHING SOAP).



The use of detergents is not recommended as they often contain additives like citric acid, glycerine, etcetera which can affect the quality of the sealed joint. After the joints have been moistened they can be further finished with your fingers moistened with Bostik FINISHING SOAP.

As long as the sealant is still fresh you can clean the tools as well as possible with a cloth. The last thin layer can be removed with Bostik CLEANER. Cured sealant needs to be removed mechanically.