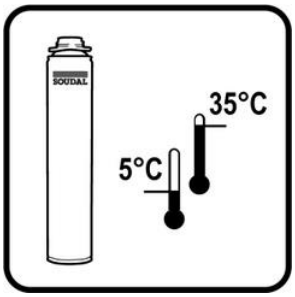
HOW TO USE POLYURETHANE FOAMS

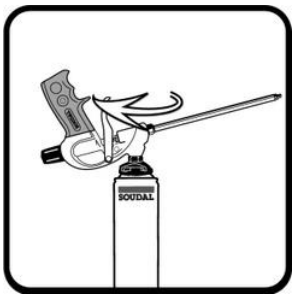
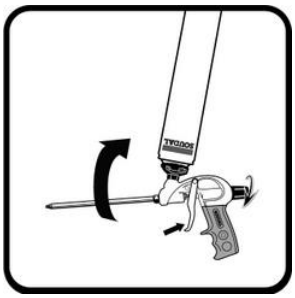
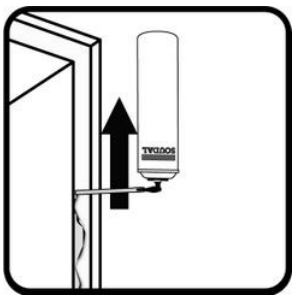
These steps outline the basic application of PU foams into joints and gaps, whether it is a gun foam or a straw foam. The guide only shows how to use one-component foams (OCFs).

As usual, always take necessary health and safety precautions, such as safety equipment such as goggles and masks, and make sure the application area is well ventilated, far from any sources of fire or ignition.

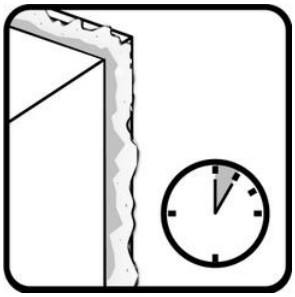
1. Preparation

	**Ensure that the product will be used in the recommended temperature as stated on the can.** The can itself should also be of the same temperature. Outside of the recommended temperatures, foams can give problems of adhesion, slumping, and inability to cure or expand properly.
	**Spray the joint substrates with a mist of water.** PU foam works on the basis of moisture curing, so it is always recommended to moisten the joint to be filled. This will enhance adhesion, and promote and shorten the curing time.
	**Shake the can well for more than 20 times. The more, the better.** PU foam cans are a mixture of propellants, pre-polymers and other chemicals that may settle into layers over time. Giving the can a good shake will mix the chemicals cohesively, and ensure a consistent product.

2. Application

For Gun Foams	For Straw Foams
	
With the foam can upright, screw the foam gun onto the can. Ensure it is tightly fitted, but do not use excessive force to screw it on.	**With the foam can upright, screw the provided straw adapter onto the can.** Ensure it is tightly fitted, but do not use excessive force to screw it on.
	
The foam can must be turned upside down for the foam to extrude. Adjust the screw attachment at the back of the gun to control the extrusion rate. Pull the trigger to extrude the foam.	**The foam can must be turned upside down for the foam to extrude.** Push in the straw upwards (or you can pull it sideways, towards yourself) to extrude the foam.
	
Apply foam into the joint or gap upwards, from bottom to top. Only fill two-thirds of the joint with foam to minimize waste. Post-expansion will fill the rest.	**Apply foam into the joint or gap upwards, from bottom to top.** Only fill one-half of the joint with foam to minimize waste. Post-expansion will fill the rest.

3. Finishing on the joint after foam application

	**Spray a mist of water at the foam.** This step is optional, but doing this will increase the curing speed and foam structure.
	**Allow the foam time to expand and cure, usually around 1 hour.** This depends on many factors such as temperature and humidity, the amount of foam extruded, and the substrates of the joint. If you can cut the foam off without any uncured, sticky foam getting stuck on your knife, the foam has cured.
	**Do not poke or mess up the foam before it cures.** The joint should remain stationary and not be moved, and the foam should not be touched. Movements or disturbances to the foam during curing will disrupt the foam structure, creating large voids and compromising on quality and insulation properties.
	**Using a sharp knife, cut away the excess foam that has expanded out of the joint.** If the joint will be exposed to weathering elements or water, the joint must also be further sealed with sealants or tapes.

4. Storing or cleaning of foam gun

Storing and cleaning of the foam gun is very important to ensure the longevity of the gun. As PU foam cures to foam a water resistant and chemical resistant solid compound, it is impossible to unclog a gun that has jammed with cured PU foam in the internal areas.

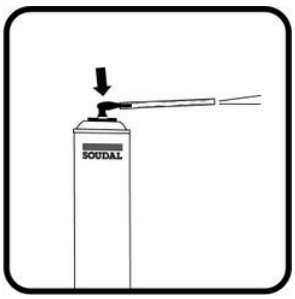
Cleaning of the gun, or taking steps to store the can and gun should happen less than 10 minutes after last extrusion of the foam.

All guns have a limited lifespan despite how much cleaning is done. Generally, better quality guns will last longer than poor quality guns, and cleaning the gun makes a major impact.

If you do not intend to use the gun within the next month:	
	**After all pressure has been released from the can, turn the foam can upright and carefully remove the gun from the can.** If there is still pressure, there might be inadvertent spraying of foam from the can when the gun is being unscrewed.
	**Use PU Foam cleaner to clean away uncured foam around the gun adapter, and the exterior of the gun.** Use the provided attached cleaner (for Soudal Foam Cleaner) and spray liberally on any uncured foam you see.
	**Fix the cleaner onto the gun adapter. Liberally extrude cleaner through the gun.** This will clean the uncured foam from the internals of then gun. Spray more than necessary to ensure a very clean gun.

If the can is unfinished, and you intend to use it again in the next month:	
	Turn the can upright, and using the air pressure of the can, extrude propellant from the can and gun. Leave the gun on the can, **twist the screw attachment** at the back of the gun until it is fully tight, and **store with the can upright.** As much as possible, clean off any uncured foam residue from any parts of the gun or can by spraying.
If the can is finished, and you intend to use the gun again in the next month:	
	Turn the can upright, and using whatever remaining air pressure of the can, extrude propellant from the can and gun until empty. Leave the gun on the can, **twist the screw attachment** at the back of the gun until it is fully tight, and **store with the can upright.** As much as possible, clean off any uncured foam residue from any parts of the gun or can by spraying.

5. Storing of unfinished straw foam

	**Turn the can upright, and using whatever remaining air pressure of the can, extrude propellant from the can and straw as much as possible.** **Store the can upright.** It is not recommended to store unfinished cans of straw foam as they are more sensitive and are more likely to jam while in storage by the above method. It is not recommended to keep the foam in storage for more than a few days.

Health and Safety Information

- PU foam propellant is harmful by inhalation, and may cause sensitization.
- PU foam cleaner is harmful by inhalation, and may cause sensitization.
- In case of insufficient ventilation, wear suitable respiratory equipment.
- PU foam and PU foam cleaner is an irritant to eyes, respiratory system, and skin. In case of contact with eyes, rinse immediately with plenty of water and soap, and seek medical attention. In case of contact with skin, also rinse immediately with plenty of water and soap.
- Wear rubber gloves and safety goggles when using PU foams and PU foam cleaners.
- In case of an accident, or if you feel unwell, seek medical advice immediately, and show the label where possible.
- As PU foams and PU foam cleaners are in pressurized containers, they must be protected from sunlight and should not be exposed to temperatures exceeding 50 degrees Celsius.
- Do not pierce or burn PU foam cans and PU foam cleaner cans, even after use.
- PU foam propellants are highly flammable. PU foam cleaners are also highly flammable.
- Do not spray the contents of PU foam and PU foam cleaner cans on a naked flame or any incandescent material.
- Keep away from sources of ignition, and smoking should not be allowed in the vicinity of PU foam and PU foam cleaner cans or where PU foam or PU foam cleaner is being applied.
- Without adequate ventilation, formation of explosive mixtures may be possible.
- Keep out of reach of children.
- PU foam and PU foam cleaner cans must be disposed of properly.
- Fully cured PU foam is harmless in skin contact, but should not be ingested.

Other Notes

- Uncured PU foam can only be removed by PU foam cleaners. PU foams cure by moisture, so using water to clean uncured PU foam may hasten the curing process instead.
- Cured PU foams are chemically resistant and water resistant. They can only be removed mechanically.
- If PU foam gets in contact with skin, you are not advised to wash the foam away with PU foam cleaner, as foam cleaner is harmful to skin.