



SGN/SEB/974

PE Jointing and Flow Stopping in Cold Weather

Managers, Operatives and Contractors Involved in PE Pipe Jointing and Flow Stopping

Introduction

Additional precautions are required when completing PE pipe jointing and squeeze off operations in cold weather.

Electrofusion and Butt Fusion Jointing Operations

You should take the following precautions when carrying out pipe jointing when the air temperature is -5°C or below.

- Use a heated tent as this will gradually raise and control the ambient temperature to above 0°C (preferably to above $+5^{\circ}\text{C}$), as this helps prevent icing of the butt-fusion machine.
- Use stoppers to prevent wind chill through the pipe.
- Check the manufacturer's instructions or seek advice from the equipment and pipe manufacturer before commencing electrofusion and butt fusion jointing.
- Adjust fusion timing for manually operated control boxes to reflect the ambient temperature ranges indicated on the bag information label. The example label below shows that for temperatures below 5°C , the fusion time should be increased to 510 second.



Fusion Data Terminal size 4mm

T $^{\circ}\text{C}$	<5	5-15	15-30	>30
39.5 V/t	510s	475s	440s	405s

Cooling times
20 min

Example Bag Information Label

- Barcode scanner fusion control boxes have integrated time-temperature compensation, whereby the welding parameters are automatically adjusted to take into consideration the ambient temperature.

Squeeze Off Operations

You must not squeeze off PE pipe if the pipe temperature is below 0°C . Supplementary heating such as pipe warmers will make sure the temperature of the pipe is not below 0°C while the squeeze off is applied. Unlike PE fusion jointing, where low air temperature (at or below -5°C) criteria require the above additional precautions, for PE squeeze-off operations it is pipe temperature that is the critical factor.

If you are still unsure of the precautions that you need to follow, refer to SGN/WI/ML/2 Work Instruction for Mainlaying up to and Including 630 mm Diameter at Pressures up to and Including 7 bar, SGN/WI/SL/1 Work Instruction for Servicelaying at Pressures up to and Including 7 bar and the manufacturers instructions, or contact your Operational Manager.

**Issued by: Bob Hipkiss Engineering Policy Manager
on SMF-1088-05102022**

Date of issue: 5 October 2022