

H.4.1.8.6.2 Suggested pipe end configurations for different end-uses

Different intended uses of pipes can lead to the need for different requirements for the pipe end configuration within a test.

In a fire situation the conditions the pipe and sealing system are exposed to depend on whether both or either ends of the pipe are sealed in practice. The pressure conditions and flow of hot gases will be different in a pipe, which is ventilated to the atmosphere when compared to a pipe which is closed.

It is important to ensure that sealing systems have been tested with appropriate pipe end conditions in accordance with national rules, if applicable.

The pipe end configuration / pipe system relations listed below may be used as a rule of thumb. Not all applications are defined and consideration of whether a system is pressurised, ventilated or unventilated is the basis for deciding pipe-end condition. When considering which pipe-end condition to test it is appropriate to consider the intended use. In the case where a national prescription is in conflict with the content of the list below the national prescriptions prevail.

- Pipes in accordance with 3.1.40, 3.1.41, 3.1.42 and 3.1.43 ('metal' pipes) as well as small tubes in accordance with 3.1.50 if made of metal, tested with pipe end configuration C/U or C/C may be used for closed pipe systems (e.g. systems under pressure).
- Pipes in accordance with 3.1.40, 3.1.41, 3.1.42 and 3.1.43 ('metal' pipes) tested with pipe end configuration U/U, U/C and C/U may be used for ventilated pipe systems (e.g. sewage pipes) and for closed pipe systems.
- Pipes in accordance with 3.1.44, 3.1.45, 3.1.46 and 3.1.47 ('plastic' pipes) as well as small tubes in accordance with 3.1.50 if made of plastic, tested with pipe end configuration U/C and C/C may only be used for closed pipe systems (e.g. systems under pressure e.g. drinking water pipes, heating pipes).
- Pipes in accordance with 3.1.44, 3.1.45, 3.1.46 and 3.1.47 ('plastic' pipes), tested with pipe end configuration U/U and C/U may be used for ventilated pipe systems and for closed pipe systems.
- Pipes in accordance with 3.1.44, 3.1.45, 3.1.46 and 3.1.47 ('plastic' pipes), tested with pipe end configuration U/U may be used for ventilated pipe systems, for rainwater systems and for closed pipe systems.

'Metal' pipes would normally be capped inside the furnace as they would not be expected to result in an open end situation in a fire scenario due to their high melting point. When pipe assemblies contain 'metal' and 'plastic' pipes, this pipe end configuration may be not relevant. However, this depends on the supporting system staying in place. If this is a possibility consideration can be given to an open ended scenario.

NOTE The diameter of the pipe might have an influence of which pipe end configuration simulates the reality best.