



Equipment Listing Certificate Number 630.1 (revision 1) (2 pages)

On the basis of information supplied in the Application for Listing of Equipment, and subject to satisfactory field performance, VeriFire, as a Sprinkler System Certifier, considers that the following equipment meets the appropriate requirements of NZS 4541:2003, NZS 4514:2007, NZS 4515:2003 and NZS 4515:2009.

Aquatherm Firestop Polypropylene Pipe and Fittings

Manufacturer: Aquatherm GmbH **Supplier:** Aquatherm (NZ) Ltd

Model: Firestop (*fusiolen* PP-R (80) FS) Pipe and fittings - 25mm to 125mm O.D.

Reference information: Aquatherm Technical Instruction firestop (issue 2//23-11-2006).
LPCB listing certificate 684a (14/2/06).
VdS listing certificate G 4050042 (9/8/05).
SAI Standardsmark License SMK20464 (28/7/05).

Range Limitations: Maximum working pressure 1200 kPa.
Ambient temperature range 4°C to 50 °C.

Restrictions and warnings:

1. For use in wet pipe systems only. Not for use with anti-freeze or other additives unless specifically approved by VeriFire.
2. Use is restricted to systems protecting certain occupancies and fire loads. See special conditions on page 2 for specific limitations. Where doubt exists concerning the use of this pipe in a particular occupancy obtain VeriFire's approval at the design stage.
3. Pipe is specified by OD. See special conditions on page 2 for details of hydraulic calculations based on ID dimensions.
4. Installation must be by Aquatherm trained and certified installers and shall comply with Aquatherm Technical instruction firestop 2//23-11-2006 and the Fusiotherm pipe systems installer manual.

Special conditions: **See page 2**

A handwritten signature in black ink, appearing to read "Nigel Robinson".

Nigel Robinson
Technical Manager
(IANZ Approved Signatory)

Issue Date: 24 March 2010



Notes: Listed equipment is subject to annual review and re-listing requirements. Contact VeriFire where doubt exists as to the listing status of equipment. This certificate remains the property of VeriFire Limited. © Copyright.



Special Conditions

Permitted Occupancies: (based on LPCB and VdS certification criteria)

Extra light hazard – All occupancies

Residential and domestic – All occupancies as permitted by NZS 4515 and NZS 4517.

Ordinary Hazard Group 1, 2 and 3 – Occupancies including or having similar conditions to hotels and hospitals (excluding kitchens and plant rooms), museums, libraries (excluding stack rooms), court rooms, nursing homes, offices and data processing rooms, schools, colleges, prisons, churches, restaurant seating areas, theatres and auditoriums (excluding stages and prosceniums), unused attics and some retail sales areas.

Permitted storage is limited to freestanding (block stacked) category 1 (NZS 4541:2003) commodities only. Only concealed pipework is permitted in storage areas - exposed pipe shall not be used.

Note that Firestop may be permitted in some areas of a building but not others.

Excluded Occupancies

Occupancies in which Firestop shall not be used include, but are not limited to: Manufacturing, processing and production areas, warehouses, laboratories (including schools), workshops, carparks, plantrooms and commercial kitchens.

Firestop shall not be used in concealed spaces containing or constructed of combustible materials unless the space is protected with quick response sprinklers. Firestop shall not be used to supply C/S sprinklers unless specifically approved by VeriFire.

Firestop shall not be used in concealed spaces used a ventilation plenums.

Enhanced safety systems

Proposals to use Firestop pipe in enhanced safety systems must be specifically approved by VeriFire at the design stage. In general Firestop will only be permitted downstream of floor or sectional isolating valves.

Protection of pipework

Pipework shall not be installed outdoors or in any situation exposed to Ultra Violet light. For protection from UV light inside a building pipe may be lagged or painted. If painted an epoxy based primer shall be used as approved by Aquatherm.

Where pipework is exposed to the fire area it shall be installed close to a flat ceiling construction and use quick response sprinklers in accordance with clause 1.5.2 of Aquatherm technical instruction 2//23-11-2006.

Concealed pipework shall have a minimum protection of 10mm gypsum board or equivalent.

Firestop pipe may be installed underground when used downstream of sprinkler system control valves. Underground installation shall be in accordance with AS/NZS 2566 (buried flexible pipelines) plus any other requirements for buried pipe required by the local Territorial Authority and Aquatherm technical specifications. Ambient temperature limitations will require consideration of low temperature limits in many areas of New Zealand, plus high temperatures limits if used in areas of geothermal activity etc.

Hydraulic Calculations

Hydraulic calculations shall be based on pipe I.D. dimensions and equivalent lengths of fittings, as published in Aquatherm technical instruction firestop 2//23-11-2006, using a Hazen-Williams coefficient of 150.