



Hep₂O Push-fit Plumbing FAQ's

- Q.) Can I use Hep₂O in a Continuously operated re-circulating system?
- A.) NO Continuously operated re-circulating systems (Secondary Hot Water Circulation / Ring main installations) are very different from conventional hot water supply and central heating systems found in domestic properties, for which Hep₂O products have been tested to.
- Q.) What distance should there be between the tee connection off the secondary circulation and the start of Hep₂O plumbing?
- A.) The Hep₂O plumbing after the tee is effectively a dead leg, only drawing hot water when the taps are opened. Allow a minimum of 200mm of copper pipe to allow the heat to dissipate.
- Q.) What effect will screed have on Hep₂O if we bury it underground?
- A.) Will have no effect on the pipe but they would be contravening Water & Building Regulations by not putting it in conduit or ducting if used for hot and cold water supply.
- Q.) Can we use a Hep₂O fitting on old Acorn 22mm Pipe?
- A.) Yes but need special Acorn 22mm Support Sleeves which we can send out. 15mm Acorn pipe with original support sleeve can be inserted into any Hep₂O fitting without a special support sleeve.
- Q.) Is this tub of lubricant in a yellow container suitable for Hep₂O fittings?
- A.) No, this type of lubricant is only to be used for below ground drainage, not for anything else.
- Q.) Can I use 15mm Hep₂O barrier pipe as a discharge pipe from a boiler safety valve?
- A.) No, this has to be copper.
- Q.) Do we produce 15mm straight radiator connectors, See P8 of price guide?
- A.) No, these are only available in 10mm white. But we do produce a white 1M long 15mm pipe cover.
- Q.) Can we use Hep₂O to carry oil?
- A.) No, regulations state soft copper must be used for this purpose.
- Q.) What do we need to adapt from old imperial ½" copper to 15mm Hep₂O.
- A.) A HD1/15 - 15mm Straight Connector will fit onto old imperial pipe so they can convert to 15mm Hep₂O.
- Q.) Can we convert old ¾" Imperial Copper to 22mm Hep₂O?
- A.) Yes, use the HD3A/22 Adaptor P3 of Price Guide.
- Q.) Can we use Hep₂O pipes and fittings with salt water?
- A.) Yes, this will have no effect on the pipes and fittings.
- Q.) Can we plaster over Hep₂O piping in a wall?
- A.) Yes, plaster will not have any effect on the piping. Although we recommend they are buried deep enough not to crack the plaster surface, ideally chased into the brick work.
- Q.) Can we bury Hep₂O underground?
- A.) Normal pipe depth below ground is a minimum 600mm therefore the Hep₂O Pipe would not withstand the weight of any soil on top of it. However it can be buried in an insulated duct, sealed at both ends.
- Q.) Is there a Hep₂O fitting available that goes straight onto a Thermostatic Radiator Valve such as a Danfoss?
- A.) Hep₂O will fit directly into most TRVs with the use of a pipe support. Alternatively we produce a radiator valve HX71/10 and HX71/15 in our Hep₂O range.
- Q.) Can we use Hep₂O piping outside, i.e. under decking?
- A.) This is not really recommended due to frost, sunlight, etc.
- Q.) Can we use any lubricant on Hep₂O fittings?
- A.) No, Fittings are pre-lubricated but after demounting if the o-ring requires lubrication for rejoining only HX200 Jointing Lubricant Spray should be used, any other lubricant will invalidate the guarantee and may contravene WRAS approvals

Q.) Can Hep₂O be used to convey gas?

A.) No, neither standard or barrier pipe is designed for gas

Q.) Whats the lowest temperature water Hep₂O can carry?

A.) With an Ethylene Glycol based antifreeze it can carry as low as -15°c

Q.) Can Hep₂O convey de-mineralised water?

A.) Yes, this will have no effect on the pipe.

Q.) Does Hep₂O require insulating?

A.) Yes, Hep₂O should be insulated in exactly the same way and to the same thickness as copper.

Q.) Does Hep₂O form condensation like copper pipe?

A.) Not to anything like the same degree.

Q.) Can we use Hep₂O piping with a Worcester Oil Heat Slave boiler?

A.) Please refer to Worcester's recommended installation instructions.

Q.) Can we do an air pressure on Hep₂O?

A.) No we do not recommend compressed air, only a water pressure test. Water will identify any small leak, and is far safer. Use of leak detecting fluids with an air test may damage the fitting and would invalidate the guarantee

Q.) Why are the HX37/15 (P6) Shut Off Valves not suitable for central heating?

A.) The material which the valve is made from is not suitable for high temperatures associated with a heating system. The ball valve HX22/15 should be used.

Q.) Can Hep₂O pipe & fittings be used on a power shower?

A.) Yes.

Q.) What is the general rule of thumb for pressure testing a Hep₂O system?

A.) First carry out a low pressure water test at 0.5 - 1 bar when the system is just demountable fittings, then a pressure test at 1.5 x the normal working pressure with a recommended minimum of 10 bar for a minimum of 45 mins. However if any of our slimline fittings are included with the system, then an 18 bar test for minimum of 45 mins should be carried out.

Q.) Is Hep₂O suitable for use on a solid fuel Cooker? AGA?

A.) No, due to the uncontrolled temperature the cooker has potential to reach excessive temperatures. Copper must be used.

Q.) How far away should we position Hep₂O pipe from downlighting?

A.) Fire regulations state this must be positioned a minimum of 150mm from the downlighting.

Q.) Can we used Hep₂O for running compressed air through?

A.) No it is not recommended for this.

Q.) What is the maximum working pressure for cold water using Hep₂O?

A.) 12 bar at 20 deg

Q.) What is the loading capacity for 15mm Hep₂O pipe?

A.) Refer the customer to our relevant Nanograms. Calculations are dependant on length of run available pump head and flow and return temperatures used.

Q.) Is there a maximum radiator size I can use when using 10mm Hep₂O pipe for central heating?

A.) Provide the Hep₂O Head Loss charts (15°, 55° and 75°) to the installer so they can work this out. All sorts of variables, such as size of job, distance between manifold and boiler/pump, etc. needs to be considered.

Q.) What is the flow rate for Hep₂O pipe?

A.) Refer to Pages 58 - 63 out of blue Technical Handbook. As a rough rule of thumb our pipe is the same flow rate of copper pipe as long as bends are kept to a minimum.

Q.) Can we freeze Hep₂O pipe?

A.) Yes you can, you will need to gently squeeze the pipe with a pair of mole grips before freezing. This will ensure that when the ice plug has been formed it doesn't shoot out the open end when the pipe is cut.

Q.) Can we use expanding foam on Hep₂O?

A.) No, due to the chemicals when in its liquid form, these could harm the pipe. Once the expanding foam has cured Hep₂O pipe can be safely fed through it. Alternatively the Hep₂O could be sleeved to give the required protection.

Q.) What are recommendations for lagging Hep₂O?

A.) This is exactly as it would be for copper please refer them to the current water regulations.

Q.) What is the Thermal Expansion of Hep₂O?

A.) The thermal linear expansion of PB (Hep₂O pipe) is 0.00013. 1 metre of pipe will expand by 0.13mm for every 1°C rise in temperature. Therefore 1m of pipe will expand to 1.3mm with a 10°C rise. See pg 42 of technical handbook heading 'Thermal Expansion'.

Q.) Can we put Hep₂O through a hole in a wall?

A.) Yes, but it should be protected with either a sleeve or temporarily taped over to avoid the pipe being scratched, and then the tape must be removed after insertion through the wall.

Q.) How do we adapt from ½" lead pipe to 15mm Hep₂O?

A.) We do not produce a purpose made fitting, however this can be achieved with the use of a compression fitting designed for use on ½" lead pipes, along with a pipe support sleeve in the Hep₂O pipe end.

Q.) Can we use Hep₂O in an Aquarium?

A.) We can only state that our Hep₂O is WRAS approved for drinking water.

Q.) Is Hep₂O susceptible to ultra violet light?

A.) Yes, as are all plastics to an extent. Where Hep₂O is used externally it should be waterproofed lagged to give thermal and ultra violet radiation protection.

Q.) What are the effects of inhibitors on Hep₂O pipe?

A.) The use of recommended inhibitors from the FERNOX and GRACE Dearborn (Sentinel) ranges will have no effect on pipe performance.

Q.) Can we use Hep₂O on a condensate drain from a condensing boiler?

A.) Yes.

Q.) Can we run de-ionised water through Hep₂O pipe?

A.) Yes, it is perfectly safe for this use.

Q.) Can we install an Electronic Limescale Remover on Hep₂O pipework.

A.) Yes

Q.) We need to connect Hep₂O to an incoming blue MDPE service pipe.

A.) Please use our HX43/22 stopcock.

Q.) We require information on how Eco-friendly to the environment Hep₂O pipe is.

A.) Refer to page 92, 93 & 94 of the Technical handbook.

Q.) How much water does Hep₂O pipe hold per metre?

A.) 10mm pipe = 32ml 15mm pipe = 110ml 16mm pipe = 120ml 22mm pipe = 260ml 28mm pipe = 400ml

Q.) Can we use Denso tape on Hep₂O pipe?

A.) NO. Denso tape should not be allowed to come into contact with Hep₂O

Q.) Can we use Hep₂O fittings on soft copper?

A.) Yes

Q.) Are Hep₂O 28mm fittings compatible with old 1" copper pipe?

A.) Yes although the 1" copper pipe will require a leading edge and may be a tight fit.

Q.) Do we use a support sleeve when connecting to a Pegler push-fit radiator valve?

A.) Yes, a Hep₂O support sleeve must be used.

Q.) How do we insert and demount the Hep₂O blanking peg?

A.) The blanking peg has been designed to push directly into a demountable fitting without removing the grab wedge. To remove the blanking peg from a fitting, it is necessary to dismount the fitting and release the grab wedge from the blanking peg using the wedge

Q.) Can I use Hep₂O in hard water areas?

A.) Yes, the smooth bore of Hep₂O prohibits scale build up.

Q.) Can I use Hep₂O in soft water areas?

A.) Yes, unlike copper, no matter how soft (acidic) the water is, it will not corrode Hep₂O pipe.

Q.) Does chlorine have an adverse effect on Hep₂O pipe?

A.) Sustained exposure to chlorine above 0.5ppm (parts per million) should be avoided. These conditions do not normally arise in UK potable water supplies. Hep₂O is not suitable for use in high chlorine concentration systems - i.e. swimming pools or decorative water features.

Q.) What is the insertion depth for demountable and slimline fittings?

A.) This is on page 9 of the installer guide. 10mm = 23mm depth / 15mm = 28mm depth / 22mm = 31mm depth / 28mm = 40mm depth. This is with the support sleeve fitted into the pipe.

Q.) When was Hep₂O introduced?

A.) Standard pipe was introduced in 1982 and was called Acorn, the barrier pipe was introduced later 1992.

Q.) Would contact from polystyrene insulation affect polybutylene?

A.) No.

Q.) Is there a minimum radius which Hep₂O pipe can be bent?

A.) Yes, this is 8 x the pipe diameter.

Q.) What happens if I kink Hep₂O pipe?

A.) Whilst this should be avoided there is no need to discard the pipe as it may only reduce the pipe strength by approx 10%. However if the wall of the pipe is damaged in any way this must then be repaired or replaced

Q.) Can we trace heat Hep₂O pipe?

A.) Yes.

Q.) Can we embed Hep₂O pipe into plaster gypsum structures?

A.) Yes, this will have no detrimental effect on the pipe.

Q.) Can we use Hep₂O as a discharge from a macerator (e.g. Saniflo)?

A.) NO this is not recommended.

Q.) The Hep₂O tank connector (HX20/15 & HX20/22) does not come with any washers; do we need any to connect the fitting to the tank?

A.) Yes, they will need to use plastic nylon washers and silicone or PTFE tape with the fitting to seal it to the tank. Do NOT use Boss White on the fitting.

Q.) We need conduit for 28mm Hep₂O pipe.

A.) As we do not sell 28mm conduit advise they use 32mm waste pipe as an alternative.

Q.) Do we need to insulate Hep₂O pipe to prevent heat loss?

A.) Yes in exactly the same way as copper

Q.) Will silicone sealant have any adverse effect on Hep₂O pipe?

A.) No.

Q.) How close to a Hep₂O fitting can we apply heat on a copper pipe?

A.) Advise a minimum distance of 12" with a cold wet rag wrapped around the copper pipe to limit the amount of heat transfer through the pipe.

Q.) How many btu's will 15mm and 22mm Hep₂O pipe take?

A.) Refer to Hep₂O Nomograms.

Q.) Do we manufacture a lead to Hep₂O adaptor?

A.) No. Our suggestion would be to use a Leadlock fitting (available in plumber's merchants), which is a compression fitting designed to connect lead pipe to copper pipe. As Hep₂O can be used with compression fittings with the use of a support sleeve, the Hep₂O pipe can be connected to the Leadlock fitting.

Q.) Can we use Hep₂O on a solid fuel boiler?
A.) No, because the maximum water temperature of solid fuel boilers is uncontrolled and can reach excessive temperatures.

Q.) What forms of isolation valves are suitable to use on central heating?
A.) Our gate valves and Ball valves are suitable for this use.

Q.) Why does 15mm and 22mm White Hep₂O pipe not have a grey polybutylene inside layer like 10mm pipe?
A.) 10mm is made with the grey inner layer to meet the opacity requirement, No light should be allowed to pass through the wall of the pipe and get to the drinking water, any light within the pipe can encourage the growth of algae. 15mm and 22mm wall thickness is adequate for no light permeation.

Q.) Are there any particular metal tape that is suitable for use on Hep₂O pipe?
A.) No tape should be installed onto our Hep₂O pipe and fittings.

Q.) Do we know of a company that produce plastic pipe with a metal barrier enabling it to be picked up with a metal detector?
A.) We do a product known as K1 which has an aluminium layer within the wall thickness of the pipe.

Q.) Can Hep₂O pipe be used in contaminated ground?
A.) No, we would suggest that you they contact Osma who manufacture a pipe system called Trigon, which is for this application.

Q.) Can we use Hep₂O on solar heating?
A.) Hep₂O should not be used for primary circuit of a solar heating system as the temperature cannot be thermostatically controlled. Hep₂O is suitable for secondary circulation on these systems.

Q.) Can we use Hep₂O on an oil boiler.
A.) Refer them to the oil boiler manufactures.

Q.) Can we use Hep₂O on a bus/coach heating system?
A.) Contact our Technical Design team for advice and support.
• Additionally the consideration of whether or not we recommend the use of PB in this application will have to be based on the user having data available showing that the operating conditions are within the documented parameters we state in our literature for Hep₂O.

Q.) Can we use Hep₂O with Antifreezes?
A.) We are unaware of any problems arising from this. Ethylene Glycol based anti freeze will be suitable for use within PB pipework provided it does not contain a detergent as a dispersant. If there is any doubt, please contact our Technical Design team.

Q.) What are the wall thicknesses of Hep₂O pipe?
A.)

Nominal size		Mean OD		Wall Thickness
Mm	Min mm	Max mm	Min mm	Max mm
10	10.0	10.1	1.5	1.8
15	14.9	15.1	1.7	2.0
22	21.9	22.1	2.0	2.3
28	27.9	28.1	2.6	2.9
32	32.0	32.3	3.0	3.3
40	40.0	40.3	3.7	4.1
50	50.0	50.3	4.6	5.0

