Brymec Copper Press-fit System Technical Specification

System Overview

Suitable for use in domestic, commercial and industrial applications, supplying hygienic drinking water or for connecting heating or cooling systems.

Copper is the most versatile and widely accepted material in the Building Services industry. Brymec Copper Press-fit is ideal for use in installations that requires high system performance combined with a high requirement for hygiene.

The Brymec Copper Press-fit system covers sizes from 15-108mm, with a choice of either 3m or 6m pipe lengths. The comprehensive range of fittings provides you with freedom to design the optimum system to suit the needs of your project.

Installation of our Copper Press-fit system is safe, reliable, flame-free, fast and economical.

Technical information

Brymec Copper Pipe Technical Information									
OD	**15mm**	**22mm**	**28mm**	**35mm**	**42mm**	**54mm**	**67mm**	**76mm**	**108mm**
Nominal Wall Thickness - mm	0.7	0.9	0.9	1.2	1.2	1.2	1.2	1.5	1.5
Internal Diameter - mm	13.60	20.20	26.20	32.60	39.60	51.60	64.60	73.00	105.00
Pipe Weight - Kg/m	0.28	0.53	0.68	1.13	1.36	1.77	2.21	3.12	4.46
Water Volume - L/m	0.13	0.32	0.54	0.84	1.23	2.09	3.28	4.19	8.66
Pipe Weight With Water - Kg/m	0.41	0.85	1.22	1.97	2.59	3.86	5.49	7.31	13.12
Max. Operating Pressure	16 Bar - See table of Operating Conditions overleaf								
Max. Operating Temperature	See table of Operating Conditions overleaf								
Thermal Expansion Coefficient	0.017 mm (m*K) BS EN 806								
Thermal Conductivity	386 W/(m*K) @ 20°C								
Internal Roughness	0.0015mm								
Pipe Material	Copper material CW024A as defined in BS EN 1976:2012								
Pipe Reaction To Fire	A1 to BS EN13501-1								
Pipe Identification Markings	Markings at 1m intervals with full production data according to BS EN 1075								
Manufacturing Standard	BS EN 1057 - Table X								
Approvals	WRAS and BSI Kite marked								

Copper Press Fittings Technical Information	
Body Material	Copper material CU-DHP CW024A as defined in BS EN 1976:2012
Threaded body material	lead and zinc free CU threads
O-ring Material	EPDM (Ethylene Propylene Diene Monomer rubber- UBA Elastomer) to BS EN 681-1 with engineered leak path
Safety	PVC break-away press indicator foil, colour coded blue
Flat Sealing Gaskets	CNAF compressed fibre washers
Approved Press Profile	M-Profile
Thread Standard	BSP - R & Rp BS EN 10226:-1 2004
Manufacturing Standard	BS EN 1254-7:2021
Approvals	WRAS
Design support	BIM - COBie Level 2

Operating Conditions

Brymec Copper Press-fit Operating Conditions			
Application	**Comments**	**Max. Pressure**	**Max. Temp.**
Mains cold water (MCW) / Boosted Cold Water (BCW)	Water main, tank fed or pump boosted sytems	16 Bar	7°C - 20°C
Domestic Hot Water (DHW)	Hot water services, typically supplied from a stored water source	16 Bar	99°C
Low Temperature Hot Water (LTHW)	For space heating and / or low temperature processes and heat networks	16 Bar	95°C
Chilled water (CHW) and cooling	For use in space cooling and cooling processes	16 Bar	5°C - 18°C
Harvested Rainwater (HRW)	For use in services applications that do not require potable water	10 Bar	7°C - 20°C
Chilled Condensate (CCW) or discharge systems		1 Bar	7°C - 20°C
Compressed Air	Class 1-3 to ISO 8753-1	16 Bar	7°C - 50°C
Private Water Supply	Must contact Brymec for advice	-	-
The above applications are typical industry conditions of use. Please refer to Brymec Technical for any applications other than those mentioned in the above table.			
Maximum permissible system conditions -20°C - 99°C at 16 Bar (120°C)			

Certification

WRAS APPROVED PRODUCT

bsi (Tubes only)

Warranty

The Brymec Copper Press-fit system is covered by a comprehensive 25 year warranty. Please refer to the Brymec terms and conditions for full details.

Installation and Tooling

For manufacturer's warranties to apply, all products must be installed to Brymec's latest installation instructions. All installers should hold a current manufacturer's training certificate of not more than two years old. Correct tooling, as approved by Brymec, must always be used. All tools should be regularly maintained, calibrated and be of good serviceable quality (safety training MUST be sought).

Protection from Freezing

If risk of damage from freezing, a suitable anti-freeze additive must be used which must be suitable for use with Copper material CW024A and EPDM rubber.

Protection from Corrosion

Copper is generally very resistant to corrosion. However, in moisture rich environments with high levels of alkalinity or acidity, various forms of corrosion can occur. If at risk from contact with high levels of moisture, protection should be applied to protect the pipe.

Buried Services

Building materials such as wet concrete, screed and some soils can cause corrosion of the pipe material. For this reason, all buried services should be protected from direct contact with the substrate. Movement caused by thermal expansion should also be considered.

Equipotential Bonding

Brymec Copper Press-fit systems should be bonded in line with the requirements of the current edition of the IEE wiring regulations BS 7671: 2018.

Manufacturer details

Brymec Limited
Unit C Redlands Centre
Coulsdon
CR5 2HT

T: 020 8655 8700
E: enquiries@brymec.com
W: www.brymec.com

Brymec 25 Year Warranty

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Scan to download the Brymec Copper Press System Brochure and Technical Data Sheets.

Brymec reserves the right to make changes, without prior notification, to the specification of our Copper Press-fit products in line with our policy of continuous improvement and development.