

Brymec Cast-Iron Drainage System Technical Specification



System Overview

Suitable for above ground use in commercial and industrial applications, installed within the building structure as a gravity drainage system for the disposal of foul water, wastewater and rainwater.

Brymec Cast Iron Drainage is manufactured from a minimum of 67% recycled material and uses socket-less connections with a choice of either Stainless Steel or Cast-Iron, rubber lined clamping connectors.

Cast Iron Drainage systems offer huge benefits for modern buildings, especially in the case of fire safety and exceptional acoustic performance. Even when used in abnormally aggressive applications, the durable materials of the system have been tested and proven that they should last for the entire life of the building.

The inherent strength of the materials means that the system will not deform under load, and due to the low coefficient of thermal expansion, it's almost certain that no expensive expansion control will be needed.

Combining the benefits of high performance materials and fire safety, with the easy installation and maintenance, cast iron drainage is ideal for projects such as hotels, multi-family residential, healthcare, commercial, offices, education and industrial projects.

Certification



Technical information

Brymec Cast Iron Drainage Pipe Technical Information							
DN (mm)	50mm	80mm	100mm	150mm	200mm	250mm	300mm
Nominal OD (mm)	58	83	110	160	210	274	326
OD Tolerance (mm)	2 /-1	2 /-1	2 /-1	2 /-2	2.5	2.5 /-2.5	2.5 /-2.5
Nominal Wall Thickness (mm)	3.5	3.5	3.5	4.0	5.0	5.5	6.0
Nominal Internal Diameter (mm)	51	76	103	152	200	263	314
Pipe Weight - Kg/m	4.3	6.3	8.5	14.2	23.3	33.5	43.6
Water Volume - L/m	2.05	4.54	8.33	18.15	31.42	54.33	77.44
Pipe Weight With Water - Kg/m	6.35	10.84	16.83	32.35	54.72	87.83	121.04
Max. Operating Pressure	See table of Operating Conditions overleaf						
Operating Temperatures	See table of Operating Conditions overleaf						
Thermal Expansion Coefficient	0.0105 mm (m*K)						
Pipe Material	Grey Cast Iron to ISO 185, EN 1561:2023						
Connection	Spun cast without sockets						
Surface Finish	Internal - Ochre, 2 Part Cross-linked Epoxy 120 µm, external - Red primer paint minimum 40µm						
Reaction to Fire (System - Assembled Products)	Class A1 (non-combustible) to BS EN 13501-1. Performance standard to BS EN 877:2021 Tested as required within Table ZA1 'System (assembled products)' - tested assembly includes ductile iron couplers with EPDM gaskets.						
Pipe Identification Markings	Markings at 1m as required by BS EN 877:2021						
Manufacturing Standard	BS EN 877:2021						
Approvals	BSi Kitemark, BBA and CE Marked to BS EN 877:2021						
*specialist project sizes available on request							

Cast Iron Drainage Fittings Technical Information	
Body Material	Grey Cast Iron to EN 1561:2023
Sealing Gaskets	EPDM elastomeric gasket to BS EN 681-1 : 1996 to be used with appropriate clamps
Connections	Mechanical clamps to BS EN 877:2021
Manufacturing Standard	BS EN 877:2021
Surface Finish	Dipped Red Cross-linked Epoxy 40 µm
Fitting Identification Marking	Full production information including CE, EN877. Manufacturing Date, design angle and fitting metrics as required by BS EN 877:2021
Certification	BSi Kitemark, CE Marked to BS EN 877:2021 and BBA certified

Operating Conditions

Brymec Cast Iron Drainage Operating Conditions - BS EN 877:2021							
Maximum Operating Pressures							
DN (mm)	50mm	80mm	100mm	150mm	200mm	250mm	300mm
Ductile Iron Coupler	0.5 Bar	0.5 Bar	0.5 Bar	0.5 Bar	0.5 Bar	-	-
Rapid Stainless Steel Coupler - 1.4520	0.5 Bar	0.5 Bar	0.5 Bar	0.5 Bar	0.5 Bar	0.3 Bar	0.3 Bar
Combi-Grip - High Pressure Overclamp*	10 Bar	10 Bar	10 Bar	10 Bar	-	-	-
Universal High Pressure Overclamp*					5 Bar	3 Bar	3 Bar
Duo Adapter Coupler (CIS to other)	0.5 Bar	0.5 Bar	0.5 Bar	-	-	-	-

* When used in combination with Rapid Couplers

Application information	Foul water (30 days @ 50°C**)	Surface Water Drainage	PH1 (Except Organic Acids)**	PH2 (Except Organic Acids)	Lime-Scale dissolving Agents	Cleaning Agents	Detergents	Disinfectants	Oxidants	Salt water	Drain Cleaners	Solvents	PH12	PH13**
Max. Temperature ≤ 23°C to BS EN 877	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Max. Temperature ≤ 50°C**	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Max. Temperature ≤ 80°C**	✓	✓	-	✓	-	-	✓	✓	✓	✓	✓	-	✓	✓

Maximum short term temperature to 95°C for 24 hours to BS EN 877:2021

**Tested to GEG-RAL standards, exceeding the test requirements from BS EN 877:2021

Warranty

Brymec Cast Iron Drainage is covered by a comprehensive 10 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.

Acoustic Performance

Due to the inherent density of the Cast Iron Drainage system and the rubber lined couplings, both airborne and structure borne transmitted sound is extremely low. For best structure borne sound or vibration performance, consider using vibration-decoupling mounting points. Fully tested to BS EN 14366 Noise from Wastewater Installations.

Protection from Corrosion

Brymec cast iron tubes are externally coated with durable red protective paint which has been specifically developed to provide enhanced corrosion resistance and protection during handling. It is advised that this protective surface is re-instated if it becomes damaged due to manual handling.

Equipotential Bonding

Brymec Cast Iron Drainage systems should be bonded in line with the requirements of the current edition of the IEE wiring regulations BS 7671: 2018. Coupler systems are equipped to ensure electrical continuity.

Manufacturer details

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Manufacturer Certification



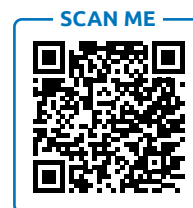
Cert. 288342018



Cert. 459902024



Cert. 1313072



Scan to download the Brymec Cast Iron Drainage System Brochure and Technical Data Sheets.

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