

Cold Water Supply Systems



Product Selector & Installation Guide

| Contents

Making it work by making it happen	3
The scale to deliver	4-5
Promoting recycling	6
Certificates and Approvals	7

Water Service Pipes & Fittings	8-10
MDPE Water Service Pipes	11
Polyfast Polyethylene Compression Fittings	12-19
Cold Water Installation Details	20-25
Polyguard Barrier Pipe and Fittings	26-29
HPPE, PE80 & HDPE Pipes	29



Making it work by making it happen

**4,000 nationwide
stockists**

20,000 product lines

Significant delivery fleet

Since creating our very first plastic pipe back in 1980, there's been a passion within us to support the industry at every stage of its growth. We are invested in its future and look forward to facing the challenges together, both from an economic and sustainability point of view. This is why we invest heavily in innovation and manufacturing techniques – to enable us to establish more inventive solutions, such as our new soil, waste and traps systems and processes.

Our customer service centres also benefit from significant investment, to provide you with the best possible service. You can be sure we have got a team on hand to help; from research and development to technical and design support. The expert knowledge of our Sales and Business Development support teams can help get you on the right track from day one.

With manufacturing facilities across Doncaster, together with the stock levels we hold, we have the capability to deliver the solutions you need to complete your projects on time and in full.

Investing to stay ahead

Without investing in new technology, new ideas and fresh talent, we'd never be able to deliver the products and systems to help you move forward and help overcome construction challenges.

By making this investment in new construction methods and technology, we can make advancements within our product ranges, helping to make installation easier, quicker and safer. Advancements that provide the end-user with peace of mind and that allow you to simply fit and forget.



| The scale to deliver

The number and size of our manufacturing facilities, together with recent investment in our own delivery fleet allows us to deliver the confidence you need to ensure your projects are completed on time, in full and to the highest quality.

We have over 20,000 product lines, giving you a choice of materials and installation methods to complete your system, from plot drainage through to plastic plumbing. We are stocked in over 4,000 merchant branches nationwide, so you're sure to find the product you need close at hand.

Not just bigger... better

We also have teams of specialists who work together with you to help design a system that fits your scheme exactly, ensure your project runs smoothly and everything meets the necessary regulations.

As we're well networked with all the necessary trade associations and regulatory bodies, working with us means you'll have access to regular important updates on legislation and new industry developments.

To ensure you get the right service, the most relevant product and the most cost-effective system for your project, we've over 1,200 experienced individuals supporting you from start to finish, whatever the size of the job. As technology and innovation become a bigger part of our lives and indeed our working environments, our experts work together with you to design a system to ensure projects run smoothly and meet all the necessary regulations.

Our Customer Experience teams, Business Development Managers and Area Sales Managers are available at every stage of your project, support is always there for whenever you need it.



Whether for new build or refurbishment projects, Polypipe specifically recognises the demands of modern construction environments, and works across all disciplines to help you get the job done.

Over 20

Research & Development
Technicians

Over 2,200

Manufacturing and
Support Services

Over 70

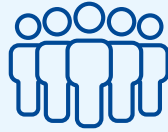
Design, Heating and
Ventilation Engineers

Over 120

Dedicated Technical
Support Engineers

Over 200

Sales and Business
Development Managers



National sales team with
local knowledge



Multisite manufacturing



2,500 tonnes of products
delivered each week



On average
50,000 order lines per day



One of the UK's largest
privately-owned delivery fleet



4,000
stockists nationwide



Promoting recycling

We use recycled materials in the manufacture of pipes and fittings, and all products are 100% recyclable at the end of their useful life. We are now one of the UK's largest processors of post-consumer waste, thanks to a significant investment programme and the commissioning of a polymer reprocessing plant in Horncastle.

The plant has expanded our ability to use reprocessed materials by recycling pre-sorted bales of household plastic polyethylene waste to create high-quality materials for our products.

Polypipe recycled 44,700 tonnes of plastic in 2018, with recyclable plastic bottles and containers accounting for 17,500 tonnes. As a result, recycled plastic accounted for 75% of the raw material consumed by our Civils and Green Infrastructure Division in 2017 to produce pipes destined to be buried in the ground in applications to manage and treat rainwater and stormwater.

Certifications and Approvals

Why can you rely on Polypipe Building Products?

Polypipe Building Products' cold water supply systems have received numerous BSI certifications and approvals. Polypipe takes pride in knowing that our products are manufactured to and above industry standards.

Giving us and you the assurance that our product will meet and exceed industry standards.

Product	Certificate No	Kitemark Licence
Water Supply under-pressure Water Pipes	KM 85017	EN 12201-2
Polyfast Polyethylene Compression Fittings	KM 85017	WIS 4-32-11
Polyguard Barrier Pipe & Fittings	KM 692343	BS 8588
Product	REG4	
Water Supply	1704501 & 1706501	



Plastics piping systems for water supply, and for drainage and sewerage under pressure - Polyethylene (PE). Pipes (+A1:2013)

Specifies the characteristics of pipes made from polyethylene (PE) for buried and above ground applications, intended for the conveyance of water for human consumption, raw water prior to treatment, drainage and sewerage under pressure, vacuum sewer systems, and water for other purposes.

Polyethylene pressure pipe with an aluminium barrier layer and associated fittings for potable water supply in contaminated land - size 20 mm to 630 mm

Details requirements for polyethylene pipes used for potable water supply in contaminated land. Covers materials, performance, dimensions and effect on water quality.



The Water Supply (Water Fitting) Regulations 1999 play an important role in protecting public health, safeguarding water supplies and promoting the efficient use of water within premises across the UK.

All products connected to the UK water supply must comply with Regulation 4 of Water Supply (Water Fittings) Regulations 1999, Water Supply (Water Fittings) (Scotland) Byelaws 2014 and Water Supply (Water Fittings) Regulations (Northern Ireland) 2009.

Their purpose is to prevent the contamination and waste of water supplied by a water undertaker once it has entered a customer's plumbing system. Ensuring that water fittings are of an appropriate quality and standard for installation is an integral aspect of the regulations.

'Reg 4' approval can be obtained from a number of certification providers such as WRAS, NSF and KIWA. Certificates can be obtained on request.

Water Service Pipes & Fittings

Polypipe Building Products manufactures a wide variety of polyethylene pipes and fittings for use in both potable and non-potable applications.

Polyethylene pipe systems provide several advantages to water engineers, including:

- Lower weight for easier handling and reduced health and safety risks
- Cost savings due to faster installation
- Long lengths for reduced jointing operations
- Greater flexibility, offering superior performance where ground movements occur
- Superior abrasion resistance
- Excellent resistance to corrosion and a wide range of chemicals
- Smooth internal bores for excellent flow rates

Applications

Polyethylene pipe systems are widely used for:

- Cold water distribution systems and waste water

They are not suitable for hot water applications, compressed air or chemical waste applications or fuel lines e.g.. Petrol, diesel or gas pipework.

Quality Assurance

The company has 13 BSI Kitemark™ Licences and operates a comprehensive quality assurance system to BS EN ISO 9002 applicable to all manufactured products that has been accepted by the British Standards Institution. The company is a BSI Registered Firm with Assessed Capability for the production of PE pressure pipes in accordance with BS EN 12201 and BS 8588.

Installation

For service pipes, the standard minimum depth of cover is 750mm. Pipes can be laid on the trimmed trench bottom in uniform, soft soils free of sharp stones with a compaction fraction of less than 03, and the as-dug soil can be used for side and backfill.

Hand compaction should be done thoroughly until the cover is 250mm deep above the pipe, at which point machine compaction can be used. If the as-dug material is unsuitable, the trench should be excavated 100mm below the pipe's centre and imported granular or similar bedding and fill in accordance with IGN 4-08-01 & IGN 4-08-01A used.

Polyethylene pipe systems should not be used as an electrical earth.

Polyfast Compression

Polyfast is an economical compression method used to join MDPE, LDPE, HDPE, regular and heavy gauge polyethylene, copper, lead, PVCu, and galvanised steel.

Handling and Storage

Metallic slings should be avoided since they can create cuts and gouges.

Make certain that no oils/solvents or heat sources come into contact with the pipes and fittings (polyethylene is flammable). Avoid making contact with sharp objects and avoid dragging pipes over the ground. Blue products should be stored under cover for periods longer than 12 months when outside.

When handling pipes/fittings in wet or icy circumstances, use extra caution since the pipes/fittings will be slippery and difficult to handle.

Testing

Before connecting the installation to the mains supply, do a one-hour pressure test at 1.5 times the actual operating pressure.

The Site Engineer shall evaluate any allowable pressure drop after disconnecting from the pressure source in accordance with IGN 4-08-03. Sanitation of the pipes prior to connection to carry potable water should be done in line with the competent Water Undertaker's prescribed process.

Features

- Sound and integrity gives reliable trouble free service.
- Simple and quick to use for speedy installation.
- PN12.5 Pressure Rating gives increased safety factor.
- Pipe and fittings from one British Manufacturer.
- End load resistant - pull out is prevented by grab ring/pipe stiffener/insert.
- Robust high impact resistance.
- Tough to withstand damage even at low temperatures.
- Seals are pre-lubricated.

Materials

Polyfast compression fittings are manufactured with engineering plastic bodies and grab rings with EPDM Rubber seals kitemarked to BS EN681-1 and engineering plastic stiffeners and retaining Nuts.

Service Pipes

Blue MDPE pipes with diameters ranging from 20 to 63mm are kitemarked™ to BS EN 12201 and are suited for underground potable water services for connecting individual properties to distribution mains.

Black MDPE pipes with diameters ranging from 20 to 63mm can be used in above ground applications for drinking water connections and are also kitemarked™ to BS EN 12201.

Non-potable water applications can also benefit from black MDPE pipe.

All service pipes come in coil lengths of 25, 50, 100, and 150 metres.

Fittings

Polyfast or electrofusion fittings (supplied by others) can be used to connect MDPE service pipes (supplied by others).

Black LDPE pipes can be joined together with Polyfast compression fittings and BS 1972 adaptors.

Polyfast Fittings

Polyfast fittings are low-cost compression fittings that are kitemarked to BS EN 12201.

Polyfast fittings are manufactured in sizes ranging from 20 to 63mm in accordance with WIS 4.32.11 and hold WRAS Certificate No. 9503041.

Polyfast characteristics include:

- Sound and integrity gives reliable trouble free service.
- Simple and quick to use for speedy installation.
- PN12.5 Pressure Rating gives increased safety factor.
- Pipe and fittings from one British Manufacturer.
- End load resistant - pull out is prevented by grab ring/pipe stiffener/insert.
- Robust high impact resistance.
- Tough to withstand damage even at low temperatures.
- Seals are pre-lubricated.

Compression Fittings in sizes 20mm to 63mm OD, to the requirements of WRC WIS 4.32.11 are Adaptable for Polyethylene, Lead, Copper and Galvanised Iron

	Standards
20-63mm MDPE	BS 6572 & BS 6730
3/8" to 2" LDPE	BS 1972:1967 Clas C & D
HDPE	BS 3284:1967 Class C & D
LDPE	BS 1972:1961 Normal and Heavy Gauge (IS134-1977)
Copper	BS 2871 Table X and Y, BS 659 & BS 1386
Lead	BS 602/1085:1970
PVC	BS 3505:1986
Galvanised Steel	BS 1387:1985

Approvals & Certifications

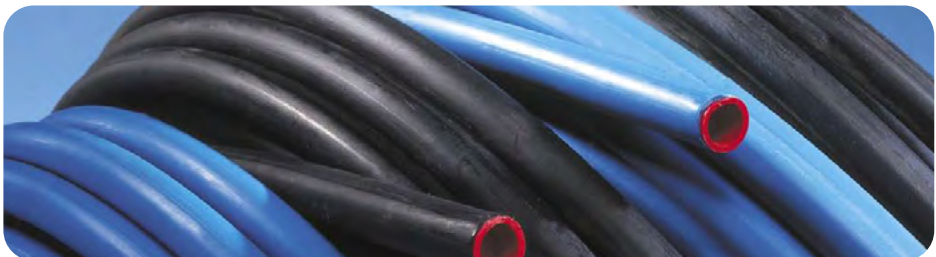


The Water Supply (Water Fitting) Regulations 1999 play an important role in protecting public health, safeguarding water supplies and promoting the efficient use of water within premises across the UK.



Plastics piping systems for water supply, and for drainage and sewerage under pressure - Polyethylene (PE). Pipes (+A1:2013)

MDPE PE80 12 Bar Pressure Pipe	Code	Colour	Approx kg/m	Min Wall Thickness	
20mm x 25m Coil. 0.13kg/m, 2.3mm.	2025		0.13	2.3mm	
20mm x 50m Coil. 0.13kg/m, 2.3mm.	2050		0.13	2.3mm	
20mm x 100m Coil. 0.13kg/m, 2.3mm.	20100		0.13	2.3mm	
20mm x 150m Coil. 0.13kg/m, 2.3mm.	20150		0.13	2.3mm	
25mm x 25m Coil. 0.17kg/m, 2.3mm.	2525		0.17	2.3mm	
25mm x 50m Coil. 0.17kg/m, 2.3mm.	2550		0.17	2.3mm	
25mm x 100m Coil. 0.17kg/m, 2.3mm.	25100		0.17	2.3mm	
25mm x 150m Coil. 0.17kg/m, 2.3mm.	25150		0.17	2.3mm	
32mm x 25m Coil. 0.28kg/m, 3.0mm.	3225		0.28	3.0mm	
32mm x 50m Coil. 0.28kg/m, 3.0mm.	3250		0.28	3.0mm	
32mm x 100m Coil. 0.28kg/m, 3.0mm.	32100		0.28	3.0mm	
32mm x 150m Coil. 0.28kg/m, 3.0mm.	32150		0.28	3.0mm	
40mm x 50m Coil. 0.43kg/m, 3.0mm.	4050		0.50	3.7mm	
40mm x 100m Coil. 0.43kg/m, 3.0mm.	40100		0.50	3.7mm	
50mm x 6m Length. 0.67kg/m, 4.6mm.	5006		0.67	4.6mm	
50mm x 25m Coil. 0.67kg/m, 4.6mm.	5025		0.67	4.6mm	
50mm x 50m Coil. 0.67kg/m, 4.6mm.	5050		0.67	4.6mm	
50mm x 100m Coil. 0.67kg/m, 4.6mm.	50100		0.67	4.6mm	
50mm x 150m Coil. 0.67kg/m, 4.6mm.	50150		0.67	4.6mm	
63mm x 6m Length. 1.05kg/m, 5.8mm.	6306		1.05	5.8mm	
63mm x 25m Coil. 1.05kg/m, 5.8mm.	6325		1.05	5.8mm	
63mm x 50m Coil. 1.05kg/m, 5.8mm.	6350		1.05	5.8mm	
63mm x 100m Coil. 1.05kg/m, 5.8mm.	63100		1.05	5.8mm	
63mm x 150m Coil. 1.05kg/m, 5.8mm.	63150		1.05	5.8mm	



Polyfast Polyethylene Compression Fittings


Approvals & Certifications





The Water Supply (Water Fitting) Regulations 1999 play an important role in protecting public health, safeguarding water supplies and promoting the efficient use of water within premises across the UK.





Plastics piping systems for water supply, and for drainage and sewerage under pressure - Polyethylene (PE). Pipes (+A1:2013)

Straight Coupler		Code	
20mm.		40020	
25mm.		40025	
32mm.		40032	
40mm.		40040	
50mm.		40050	
63mm.		40063	

Slip/Repair Coupler		Code	
20mm.		40020S	
25mm.		40025S	
32mm.		40032S	
40mm.		40040S	
50mm.		40050S	
63mm.		40063S	


Polylink Straight Universal Transition Coupler		Code	
25mm x 15/22mm.		4841522	
25mm x 21/27mm.		4842127	
25mm x 27/35mm.		4842735	
32mm x 27/35mm.		4882735	

Polylink 90° Bent Universal Transition Coupler		Code	
25mm x 15/22mm.		4851522	
25mm x 21/27mm.		4852127	
25mm x 27/35mm.		4852735	


Reducing Coupler		Code	
25mm x 20mm		40625	
32mm x 20mm		4063220	
32mm x 25mm		40632	
40mm x 32mm		40640	
50mm x 32mm		4065032	
50mm x 40mm		40650	

Polyfast Polyethylene Compression Fittings

Metric to Imperial Coupler	Code	
25mm x 3/4".	48125	


Imperial Male Iron x PE Coupler	Code	
3/4" BSP x 25mm	49034	
1" BSP x 32mm	4901	


Taper BSP thread to BS21 - Use
PTFE tape to seal thread

Copper/ Polybutylene Adaptor	Code	
20mm x 15mm (1/2").	47820	
25mm x 15mm (1/2").	4782515	
25mm x 22mm (3/4").	47825	
32mm x 22mm (3/4").	4783222	
32mm x 28mm (1").	47832	

Female Adaptor	Code	
20mm x 1/2" BSP.	40320	
25mm x 1/2" BSP.	4032512	
25mm x 3/4" BSP.	40325	
32mm x 1" BSP.	40332	
40mm x 1 1/4" BSP.	40340	
50mm x 1 1/2" BSP.	40350	
63mm x 2" BSP.	40363	


Complete with stainless steel
reinforcing shroud

Male Adaptor	Code	
20mm x 1/2" BSP.	40420	
25mm x 1/2" BSP.	4042512	
25mm x 3/4" BSP.	40425	
32mm x 1" BSP.	40432	
40mm x 1 1/4" BSP.	40440	
50mm x 1 1/2" BSP.	40450	
63mm x 2" BSP.	40463	

Elbow	Code	
20mm.	40120	
25mm.	40125	
32mm.	40132	
40mm.	40140	
50mm.	40150	
63mm.	40163	


Polyfast Polyethylene Compression Fittings

Reducing Elbow	Code	
25mm. 25mm x 20mm 90° Reducing.	4012520	


Reducing Female Elbow	Code	
20mm x 1/2" BSP Female.	42120	
25mm x 3/4" BSP Female.	42125	
32mm x 1" BSP Female.	42132	
40mm x 1 1/4" BSP Female.	42140	
50mm x 1 1/2" BSP Female.	42150	
63mm x 2" BSP Female.	42163	


Complete with stainless steel reinforcing shroud


Tank Connector	Code	
25mm x 3/4" BSP.	42525	

Reducing Male Elbow	Code	
20mm x 1/2" BSP Male.	42320	
25mm x 3/4" BSP Male.	42325	
32mm x 1" BSP Male.	42332	


Complete with stainless steel reinforcing shroud


Equal Tee	Code	
20mm.	40220	
25mm.	40225	
32mm.	40232	
40mm.	40240	
50mm.	40250	
63mm.	40263	

Branch Reducing Tee	Code	
25mm x 20mm.	41125	
32mm x 20mm.	4113220	
32mm x 25mm.	41132	


BSP Branch Tee	Code	
20mm x 1/2" BSP Female.	42220	
25mm x 3/4" BSP Female.	42225	
32mm x 1" BSP Female.	42232	
40mm x 1 1/4" BSP Female.	42240	
50mm x 1 1/2" BSP Female.	42250	
63mm x 2" BSP Female.	42263	
20mm x 1/2" BSP Male.	42420	
25mm x 3/4" BSP Male.	42425	


Polyfast Polyethylene Compression Fittings


End Plug	Code	
20mm.	40920	
25mm.	40925	
32mm.	40932	
40mm.	40940	
50mm.	40950	
63mm.	40963	

Stop End	Code	
20mm.	30920	
25mm.	30925	
32mm.	30932	
40mm.	30940	
50mm.	30950	
63mm.	30963	


Fits Polyfast sockets. Pipe stiffeners should be used


Plastic Pipe Stiffener 12 Bar Plastic Pipe Stiffener	Code	
20mm.	46420	
25mm.	46425	
32mm.	46432	
40mm.	46440	
50mm.	46450	
63mm.	46463	


Copper Adaptor Set	Code	
20mm x 15mm Cu.	46820	
25mm x 15mm Cu.	4682515	
25mm x 22mm Cu.	46825	
32mm x 28mm Cu.	46832	


MDPE High Flow Reducing Set	Code	
25mm x 20mm.	4802520	
32mm x 20mm.	4803220	
32mm x 25mm.	4803225	
50mm x 20mm.	4805020	
50mm x 25mm.	4805025	
50mm x 32mm.	4805032	
63mm x 20mm.	4806320	
63mm x 25mm.	4806325	
63mm x 32mm.	4806332	
63mm x 50mm.	4806350	


Polyfast Polyethylene Compression Fittings

MDPE Reducing Set		Code	
25mm x 20mm.		4712520	
32mm x 20mm.		4713220	
32mm x 25mm.		4713225	
50mm x 20mm.		4715020	
50mm x 25mm.	For MDPE B56572 and B56730	4715025	
50mm x 32mm.		4715032	
63mm x 20mm.		4716320	
63mm x 25mm.		4716325	
63mm x 32mm.		4716332	
63mm x 50mm.		4716350	


Lead Adaptor Set		Code	
20mm x 3/8" 5lb.		46920	
25mm x 1/2" 7lb.		46925	
25mm x 3/4" 9lb.	Light Grey BS 602, 1085	46932	
32mm x 3/4" 11lb.		469329	
40mm x 1" 16lb.		46940	


Wider Tolerance Lead Coupler		Code	
25mm x 3/8" 5lb.		479385	
25mm x 1/2" 7lb.		479127	
25mm x 1/2" 9lb.		479129	
25mm x 3/4" 9lb.		479349	
32mm x 3/4" 11lb.		4793411	
32mm x 1" 16lb.		479116	


Mid Blue Polyethylene Adaptor Set		Code	
20mm x 1/2".		465C12	
25mm x 3/4".		465C34	
32mm x 1".	Low Density BS1972:1967 Class C. To connect 3/8" use 1/2" 467NG12 with 20mm Nut and Body	465C1	
50mm. 50mm x 1 1/4".		465C114	
50mm. 50mm x 1 1/2".		465C112	
63mm. 63mm x 2".		465C2	


Light Green Polyethylene Adaptor Set		Code	
25mm x 1/2".		465D12	
25mm x 3/4".		465D34	
32mm x 1".	Low Density BS1972:1967 Class D	465D1	
50mm x 1 1/4".		465D114	
50mm x 1 1/2".		465D112	


Polyfast Polyethylene Compression Fittings

Dark Blue Polyethylene Adaptor Set		Code	
20mm x 1/2".	High Density B53284:1967 Class C	466C12	
25mm x 3/4".		466C34	
32mm x 1".		466C1	
50mm x 1 1/4".		466C114	
50mm x 1 1/2".		466C112	
63mm x 2".		466C2	

Dark Green Polyethylene Adaptor Set		Code	
20mm x 3/8".	High Density B53284:1967 Class D	466D38	
20mm x 1/2".		466D12	
25mm x 3/4".		466D34	
32mm x 1".		466D1	
50mm x 1 1/4".		466D114	
50mm x 1 1/2".		466D112	
63mm x 2".		466D2	

Red Polyethylene Adaptor Set		Code	
20mm x 1/2".	Low Density B51972:1961 Normal Gauge IS134:1977	467NG12	
25mm x 3/4".		467NG34	
32mm x 1".		467NG1	
50mm x 1 1/4".		467NG114	
50mm x 1 1/2".		467NG112	
63mm x 2".		467NG2	


Light Blue Polyethylene Adaptor Set		Code	
20mm x 1/2".	Low Density B51972:1961 Heavy Gauge IS134:1977	467HG12	
25mm x 3/4".		467HG34	
32mm x 1".		467HG1	
50mm x 1 1/4".		467HG114	
50mm x 1 1/2".		467HG112	


PVC/Galvanised Iron Adaptor		Code	
20mm x 3/8".	Not end load bearing. Must be anchored or clamped to prevent pullout PVC B5 3505/6 Galv. Steel B51387	4722038	
25mm x 1/2".		4722512	
32mm x 3/4".		4723234	
40mm x 1".		47240	


Polyfast Polyethylene Compression Fittings

Bibtap Wall Flange (DZR Brass)		Code	
20mm x 1/2" BSP.		41320	
25mm x 1/2" BSP.		41325	
25mm x 3/4" BSP.		4132534	
Bibtap Wall Flange (Plastic)		Code	
20mm x 1/2" BSP.		48320	
25mm x 1/2" BSP.		4832512	
25mm x 3/4" BSP.		48325	
Gunmetal Stop Cock - Polyfast Ends		Code	
20mm.		41020	
25mm.		41025	
32mm.		41032	
Gunmetal Stop Cock - Female Iron		Code	
1 1/2" F.I. - Requires Adaptors		31050	
2" F.I. - Requires Adaptors		31063	
Engineering Plastic Stop Cock (complete with excess torque override feature)		Code	
20mm.		42620	
25mm.		42625	
32mm.		42632	
Square Drive Stop Cock (Engineering Plastic)		Code	
20mm.		49120	
Stop Cock		Code	
20mm x 15mm (1/2") Copper.		47720	
25mm x 15mm (1/2") Copper.		4772515	
25mm x 22mm (3/4") Copper.		47725	
Gunmetal Stop Cock - Female Iron		Code	
1 1/2" F.I. - Requires Adaptors		31050	
2" F.I. - Requires Adaptors		31063	

Polyfast Polyethylene Compression Fittings

Double Check Valve		Code	
20mm.		47620	
25mm.		47625	
32mm.		47632	

Single Union Ball Valve		Code	
½" F.I.		47312	
¾" F.I.		47334	
1" F.I.		4731	

Spigot Reducer		Code	
50mm x 20mm		3085020	
50mm x 25mm		3085025	
50mm x 32mm		3085032	
63mm x 20mm		3086320	
63mm x 25mm		3086325	
63mm x 32mm		3086332	

Threaded Reducing Bush		Code	
¾" x ½" BSP.		4703412	
1" x ½" BSP.		470112	
1" x ¾" BSP.		470134	
1¼" x 1" BSP.		4701141	
1½" x ½" BSP.		47011212	
1½" x ¾" BSP.		47011234	
1½" x 1" BSP.		4701121	
1½" x 1¼" BSP.		470112114	
2" x ½" BSP.		470212	
2" x ¾" BSP.		470234	
2" x 1" BSP.		47021	
2" x 1½" BSP.		4702112	
3" x 2" BSP.		47032	
4" x 3" BSP.		47043	

Cold Water Installation Details

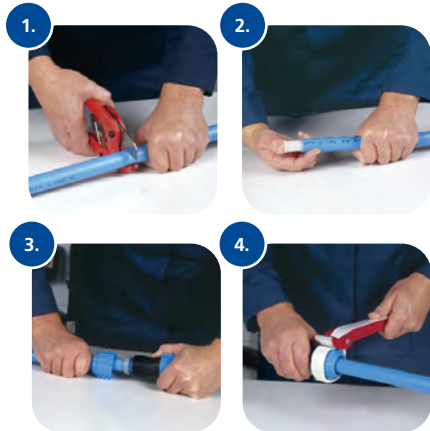
With Polypipe Building Products' "fit and forget" philosophy. Installation details are critical to having a waterproof system. Following the recommendations in this section will inform you of Polypipe's preferred installation procedure for our cold water systems.

Polyethylene Pipe Joining

Note: Always inspect the rubber seal for the presence of the factory-applied silicone lubrication grease.

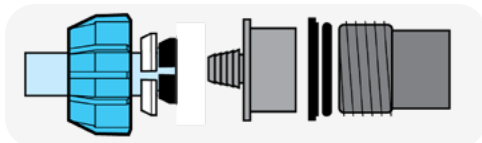
To effectively connect Polyfast compression fittings to blue (BS 6572) and black (BS 6730) MDPE pipe, four steps are required.

1. Always use a certified pipe cutter (Code 781 or 778). When cutting, a minor rotation of the pipe will aid in the process. Never, use a hacksaw. Remove any burrs or sharp edges from the pipe end and cut it square.
2. Insert the pipe stiffener up to the stop.
3. Unscrew the nut on the Polyfast fittings.
4. To secure, insert clean pipe to full socket depth and hand tighten the Polyfast nut. Tighten the nut 1/8 turn using a strap wrench (code: 780). Avoid overtightening.



MDPE Reducing Set

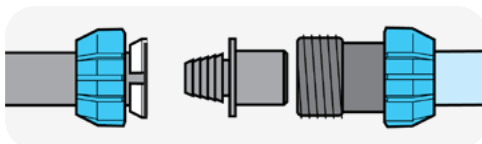
1. Remove the fitting's nut and position it over the pipe end, removing the black/grey metric grab ring.
2. Place the new black grab ring and nut reducer over the pipe end (thickest section towards fitting body). Make sure the grip ring is at the end of the pipe. Insert the barbed end of the adapter into the pipe and tap it in with a wooden mallet up to the flange.
3. If required, push the black grab ring up to the flange.
4. Insert the spigot end of the adapter into the body of the fitting to the full socket depth. Insert nut into fitting.
5. Tighten by hand + 1/8 turn with a strap wrench.



LDPE and HDPE Black

BS 1972:1967 Class C & D | BS 3284 Class C & D
BS 1972:1961 (IS134 NG & HG)

1. Remove the nut from the fitting and position it over the end of the pipe, leaving the black/grey metric grab ring in place.
2. Place a white imperial grab ring on top of the pipe (thickest section towards fitting body). Make sure the grip ring is at the end of the pipe.
3. Insert the barbed end of the adapter into the pipe and tap it in with a wooden mallet up to the flange.
4. Insert the spigot end of the adapter into the body of the fitting to the full socket depth. Insert nut into fitting.
5. Tighten by hand + 1/8 turn with a strap wrench.

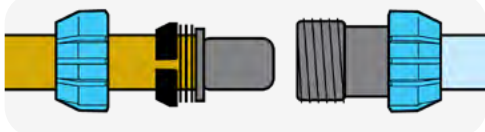


Cold Water Installation Details

Copper

BS 2871 Table X & Y (EN 1057)

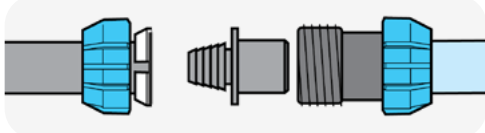
1. Remove nut from fitting and place over pipe end, discarding the black/grey metric ring and replacing with new Copper spacer ring over pipe (thickest section towards fitting body)
2. Place over pipe stainless steel washer, stainless steel grab ring (taper towards pipe end) and then other stainless steel washer maximum of 15mm from end.
3. Push rubber bush, flange first onto pipe, maintaining close contact with other components up to stop of rubber bush.
4. Push spigot end of adaptor into body of fitting to full socket depth. Engage nut onto fitting.
5. Hand tighten plus 1/8 turn using strap wrench.



Lead

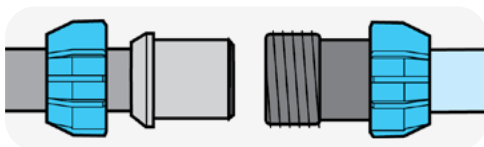
BS 602, 1085/1970 NB Use 3/8" in 20mm body, 1/2" in 25mm body, 3/4" in 32mm body, 1" in 40mm body.

1. Remove nut from fitting and place over pipe end, discarding the black/grey metric grab ring.
2. Place white grab ring over pipe (thickest section towards fitting body). Ensure the grab ring is positioned at the end of the pipe
3. Insert barbed end of adaptor into pipe an tap in with wooden mallet up to flange.
4. Push white grab ring up to flange, if necessary.
5. Push spigot end of adaptor into body of fitting to full socket depth. Engage nut onto fitting.
6. Hand tighten plus 1/8 turn using strap wrench.



PVCu (BS 3505/6 1968) and Galvanised Steel (BS 1387)

1. Remove the nut from the fitting and place over pipe end.
2. Discard black/grey metric grab ring.
3. Push rubber bush onto end of pipe.
4. Push spigot end of adaptor into body of fitting to full socket depth. Engage nut onto fitting.
5. Hand tighten plus 1/8 turn using strap wrench.



Imperial Adaptor Couplers for LDPE/HDPE Pipes

BS 1972:1967 Class C & D, BS 3284 Class C & D

1. Note that the imperial end of the fitting has a black nut. Cut the pipe end square with the axis and file a chamfer onto the pipe end.
2. Insert the pipe end through the black nut, grab ring and the rubber seal to full socket depth.
3. Hand tighten plus 1/8 turn using strap wrench.

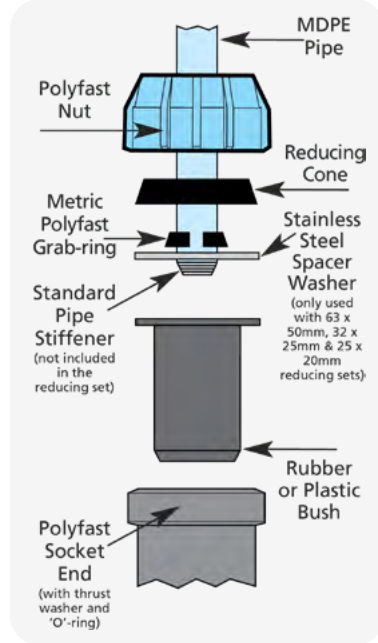
Wide Tolerance Adaptor Couplers Lead Pipes

BS 602, BS 1085:1970

1. Check condition of pipe surface and cut back pip square to remove any surface grooves or damage using pipe cutters or saw, deburr and chamfer end of pipe to facilitate assembly.
2. Remove the nut from the fitting and replace the nut over the pipe end.
3. Mark the socket depth on the pipe and push the grabring up to the mark (thickest section toward fitting body).
4. Push the seal onto the pipe and up to the grab-ring (tapered face towards fitting).
5. Position the lead pipe, seal and grab-ring into the fittingbody. Engage the thread.
6. Hand tighten plus 1/8 turn using strap wrench.

High Flow Reducing Set for MDPE Pipes

1. Pipe should be cut square and fitted with a standard Polyfast pipe stiffener.
2. Choose the correct reduction set based on the size of the polyfast fitting and the smaller pipe to be fitted (eg. 63mm x 20mm reducing set, Code: 4806320).
3. Discard the conventional metric grabring and remove the nut from the Polyfast fitting. Check that the seal and thrust washer are still in place in the socket.
4. Insert the plastic reduction bush into the polyfast socket's socket until the bush's end is flush with the end of the socket.
5. Replace the Polyfast nut on the end of the body by placing the smaller grab-ring onto the reducing bush (thicker end in contact with the bush) and the reducing cone over the grab-ring.
6. Push the pipe through the nut and into the reducing bush's socket to make contact with the register at the bottom of the socket.
7. Tighten by hand + 1/8 turn with a strap wrench.



MDPE Pipe Size	Product Code	From (mm)	To (mm)
32mm	4803220	32	20
50mm	4805020	50	20
50mm	4805225	50	25
63mm	4806320	63	20
63mm	4806325	63	25
63mm	4806332	63	32

TABLE 1: PLASTIC REDUCING BUSHES FOR MDPE PIPE

High Flow Reducing Set for MDPE Pipes

BS 2871 Table X & Y (EN 1057)

1. Cut pipe square and fit standard Polyfast pipe stiffener.
2. Select the appropriate reducing set for the size of polyfast fitting and the smaller pipe to be fitted (eg. 63mm x 20mm reducing set, Code: 4806320).
3. Remove the nut from the Polyfast fitting and discard the standard metric grab-ring. Ensure that the seal and thrust washer remain in the position in the socket and check that the factory applied silicone lubricant grease is present on the rubber seal.
4. Place the nut on the pipe end followed by the reducing cone, grab-ring (thickest section towards the pipe end) and stainless steel support washer.
5. Fit the rubber bush over the pipe end and push the stainless steel washer/grab-ring and reducing cone back down the pipe until the pipe is fully inserted into the rubber bush with a stainless steel spacer washer and grab-ring in contact with the flanged end of the rubber bush.
6. Push the plain spigot of the rubber reducing bush into the socket of the fitting through the thrust washer and 'O'-ring and engage the nut onto the threads on the body of the fitting.
7. Hand tighten plus 1/8 turn using strap wrench.

MDPE Pipe Size	Product Code	From (mm)	To (mm)
25mm	4802520	25	20
32mm	4803225	32	25
63mm	4806350	63	50

TABLE 2: RUBBER REDUCING BUSHES FOR MDPE PIPE

Copper/Polybutylene Sockets

BS 2871 Table X & Y (EN 1057)

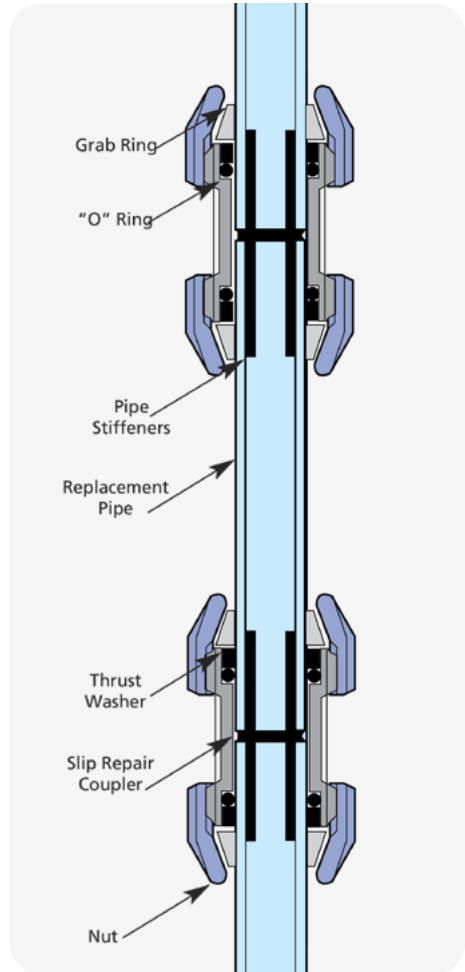
Polyfast MDPE x Copper/polybutylene adaptors (Code: 478) and Push-fit MDPE x Copper/polybutylene adaptors (Code: 378)

Please refer to the jointing and dismantling instruction section of the Polyplumb Hot and Cold Water Plumbing and Heating Guide earlier in this manual (pages 8, 9 and 10).

Slip Repair Couplers

To replace damaged pipe on straight runs.

1. Remove the damaged pipe for at least the length of two slip couplers. De-burr/chamfer pipe ends and cut a replacement length of pipe.
2. Fit pipe stiffeners to pipe ends and use a felt-tipped pen to mark half the length of the slip couplers from each pipe end. Remove the nuts and grab rings from the two slip couplers and install one nut and one grab ring on each of the existing pipe ends with the tapers as illustrated.
3. Check the lubrication of the 'O'-ring seals and slide one slip coupler onto each pipe end, holding the thrust washer and 'O'-ring in place until the couplers are fully onto the pipe ends.
4. Insert the new length of pipe between the two existing pipe ends after attaching the second nut and grab-ring of each slip coupler as illustrated.
5. Using the previously established lines as a guide, slide the two slip couplers onto the replacement pipe so that they are half on the current pipe and half on the replacement pipe. If required, return the seals and thrust washers to their original positions in each socket.
6. Slide the grab rings back until they make contact with the end of each socket. (It may be required to slide the end of a screwdriver or a piece of wood into the grab-ring slot to slightly open the grab-ring out to allow it to be pushed backwards).



Polyguard Barrier Pipe and Fittings

Polypipe Building Products provides a range of high-quality Polyguard pipes and fittings that are intended to deliver dependable and efficient performance in a number of applications. These pipes and fittings are composed of high-density polyethylene (HDPE), which is recognised for its superior strength, durability, corrosion resistance, and resilience to environmental stressors.

The adaptability of Polypipe's Polyguard pipes and fittings is one of its main advantages. They can be used in a variety of applications, such as water delivery through redeveloped sites that may have been contaminated by previous industrial use. As a result, they are an excellent choice for a wide range of building and infrastructure projects.

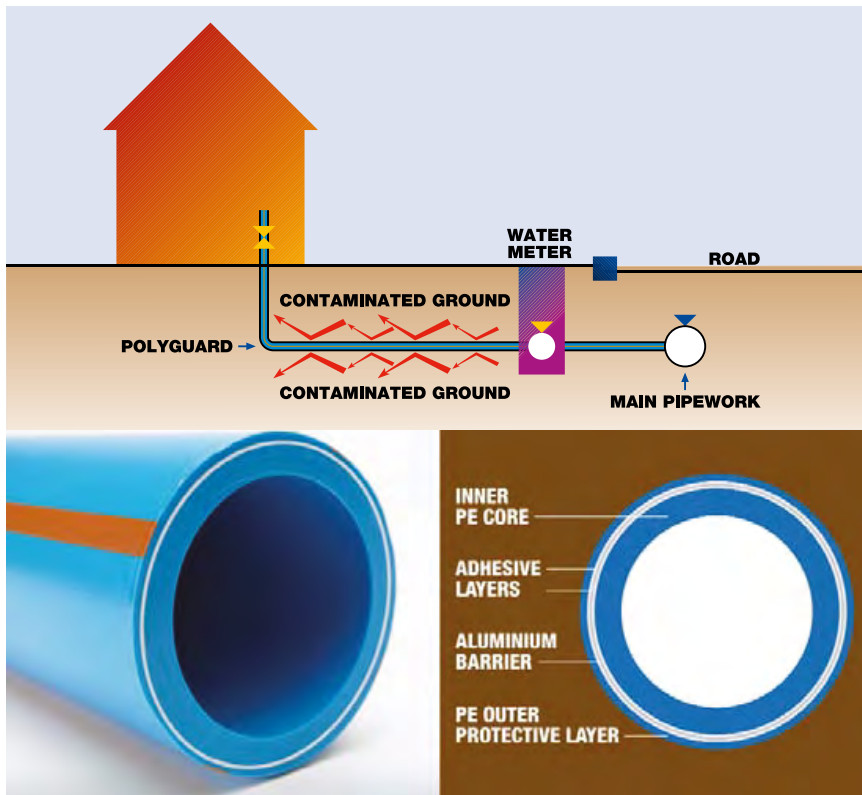
Polyguard was created to assure the safe transportation of drinking water across regenerated locations that may have been polluted by past industrial usage. Polyguard, as the name implies, protects important drinking water from a wide variety of possible pollutants, including organic, inorganic, corrosive, and poisonous substances.

The Polyguard system includes a broad selection of pipe and brass-ware fittings, allowing for a full potable water supply solution.

Polyguard pipe is made of two layers of Polypipes' proven flexible polyethylene attached to an aluminium layer, creating an impenetrable barrier to contaminant penetration. The inner layer of polyethylene transports water, while the outer layer protects the aluminium layer from harm. Brown stripes on the outside layer make it easy to identify installed pipes.

The Polyguard line is complemented with a wide choice of specialty fittings, each with a specific insert designed to provide a flawless seal. Tees, elbows, and standard and transition couplings are available for all three Polyguard pipe sizes: 25, 32, and 63mm.

Pipe in 25mm and 32mm diameters are available in 50m coils, while pipe in 63mm diameter is available in 25m, 50m coils, and 6m straight lengths.



Polyguard Barrier Pipe and Fittings



Approvals & Certifications





The Water Supply (Water Fitting) Regulations 1999 play an important role in protecting public health, safeguarding water supplies and promoting the efficient use of water within premises across the UK.







Polyethylene pressure pipe with an aluminium barrier layer and associated fittings for potable water supply in contaminated land - size 20 mm to 630 mm

Polyguard Barrier Pipe		
	Code	
25mm. Polyguard pipe x 50m coil.	PGP2550	
32mm. Polyguard pipe x 50m coil.	PGP3250	
63mm. Polyguard pipe x 6m length.	PGP636	
63mm. Polyguard pipe x 25m coil.	PGP6325	
63mm. Polyguard pipe x 50m coil.	PGP6350	
Polyguard Plastic Fittings		
	Code	
25mm. 25mm Coupler.	PGF40025	
32mm. 32mm Coupler.	PGF40032	
32mm. 32 x 25mm Reducer.	PGF40632	
25mm. 25mm x 3/4" Male Adaptor.	PGF40425	
32mm. 32mm x 1" Male Adaptor.	PGF40432	
25mm. 25mm x 3/4" Female Adaptor.	PGF40325	
25mm. 32mm x 1" Female Adaptor.	PGF40332	
25mm. 25mm Elbow.	PGF40125	
32mm. 32mm Elbow.	PGF40132	
25mm. 25mm Tee.	PGF40225	
32mm. 32mm Tee.	PGF40232	
25mm. 25mm x 15mm Transition Coupler.	PGF4782515	
25mm. 25mm x 22mm Transition Coupler.	PGF47825	
32mm. 32mm x 28mm Transition Coupler.	PGF47832	
25mm. 25mm Polyguard x 25mm MDPE Transition Coupler.	PGF402525	
32mm. 32mm Polyguard x 32mm MDPE Transition Coupler.	PGF403232	
25mm. 25mm Stopcock.	PGF41025	
32mm. 32mm Stopcock.	PGF41032	
25mm. 25mm Endcap.	PGF40925	
32mm. 32mm Endcap.	PGF40932	

Polyguard Barrier Pipe and Fittings & HPPE, PE80 & HDPE Pipes

Polyguard DZR Gunmetal Fittings		Code	 PGF32SC  PGF3290E
25mm. Polyguard straight coupling.		PGF25SC	
32mm. Polyguard straight coupling.		PGF32SC	
63mm. Polyguard straight coupling.		PGF63SC	
25mm. Polyguard x 3/4" MBSP coupling.		PGF25MTC	
32mm. Polyguard x 1" MBSP coupling.		PGF32MTC	
63mm. Polyguard x 2" MBSP coupling.		PGF63MTC	
25mm. Polyguard x 3/4" FBSP coupling.		PGF25FTC	
32mm. Polyguard x 1" FBSP coupling.		PGF32FTC	
25mm. Polyguard 90° elbow.		PGF2590E	
32mm. Polyguard 90° elbow.		PGF3290E	
63mm. Polyguard 90° elbow.		PGF6390E	
25mm. Polyguard equal tee.		PGF25T	
32mm. Polyguard equal tee.		PGF32T	
25mm x 15mm. Polyguard to copper transition coupling.		PGF2515TC	
25mm x 22mm. Polyguard to copper transition coupling.		PGF2522TC	
25mm x 25mm. Polyguard to PE transition coupling.		PGF2525TC	
32mm x 32mm. Polyguard to PE transition coupling.		PGF3232TC	

HPPE PE100 HDPE Range	Code	Colour	Approx kg/m	Pressure Rating	
90mm x 6m	HP0901006		1.40	10	
110mm x 6m	HP1101006		2.08	10	

HPPE PE100 HDPE Range	Code	Colour	Approx kg/m	Pressure Rating	
90mm x 6m	HP0901006		1.40	10	
110mm x 6m	HP1101006		2.08	10	

Notes

This image shows a full page of white paper with horizontal blue dashed lines. The lines are evenly spaced and run across the width of the page, providing a guide for handwriting practice. There are no margins, text, or other markings on the page.

[illegible]

Cold Water Supply



Polypipe Building Products

Broomhouse Lane

Edlington

Doncaster

DN12 1ES

UK

T: +44 (0) 1709 770000

F: +44 (0) 1709 770001