# Puriton® Barrier pipe system

For drinking water applications.



# PURITON® BARRIER PIPE

# A tried and tested barrier pipe system for new homes on brownfield sites

Developments in polyethylene pressure pipelines have made it possible to combine polyethylene (PE) with other materials, like aluminium, which possesses excellent barrier properties. With governments encouraging the redevelopment of brownfield land for new homes, there was a need for a new polyethylene pipeline solution that would ensure the protection of our drinking water against soil contaminants found in brownfield sites.

#### What are brownfield sites?

Brownfield sites are areas of land or premises which were previously used for farming, industrial or commercial purposes, but have subsequently become unoccupied, derelict or contaminated.

The regeneration and development of these types of sites into housing, warehouses or factories is encouraged by governments to protect the green belt, minimise urban sprawl and make better use of disused land.

## Puriton®, the 21 st century pipe system for contaminated land

Specifically developed to offer water companies, developers and builders of new housing, warehouses or industrial buildings an engineered barrier pipe solution, Puriton® is a cutting-edge pipe and fittings system, which does exactly that: safeguards potable water against soil contaminants by incorporating impermeability with flexibility.

A multi-layer composite structure pipe, Puriton® combines the unique characteristics of PE with the exceptional barrier properties of aluminium (Al). The pipe is lightweight, flexible, corrosion resistant and easy to install, without the need to wrap the finished joints.

The Puriton® pipe can be joined using our comprehensive range of fittings, specially developed to give you the assurance of a safe and durable solution that protects your drinking water.

#### Features and Benefits

- Multi-layer pipe construction PE-Al-PE
- Brown stripes denote a multi-layer pipe
- Full barrier pipe system
- Combines the flexibility of polyethylene with the barrier properties of aluminium
- Safeguards drinking water quality
- Easy to handle, flexible and lightweight
- End load resistant system
- Installation cost savings no requirement for thrust blocks
- No requirement to post-wrap the joints
- Suitable for most common installation techniques
- Suitable for new and replacement drinking water supply systems











KM 592372 KM 597648 KM 672956

#### **Approvals**

- PE pipe material approved for use in drinking water supply - diameters 90 to 180 mm.
- WRAS PE80 pipe material.
- WRAS Redman™ fittings.
  - WRAS plastic mechanical fittings 25 to
- BS EN 12201-3 (KM 597648) -Puriton® electrofusion fittings.
- KIWA UK Approved Product in compliance with UK Water Supply Regulations - tapping tees.
- BS 8588:2017 (KM 672956) Puriton® pipe.

#### Approved jointing methods

- BS 8588 (KM 672956)
  - Puriton® plastic mechanical fittings.
  - Redman<sup>TM</sup> fittings.
  - Puriton® electrofusion fittings.
  - Puriton® gunmetal tapping tees.
  - Butt-fusion in accordance with WIS 4-32-08.

# Puriton® pipe



#### Puriton® service pipe

Service pipe construction PE80-Al-PE80 - SDR11: maximum operating pressure 12.5 bar

Diameter	CDD		Product code				
mm	SDR	6 m	25 m	50 m	100 m	per m	
25	11	-	-	XQ2528	-	£7.95	
32	11	-	_	XQ2535	-	£10.25	

XQ2568 XQ2570 XQ2571 XQ2572



#### Puriton® mains pipe

Mains pipe construction PE100-Al-PE100

- SDR11: maximum operating pressure 16 bar

£28.10

- SDR17: maximum operating pressure 10 bar

Diameter	SDR		Product code				
mm	JUK	6 m	12 m	50 m	100 m	per m	
90	11	XQ0125	XQ0126	XQ0128	XQ0129	£35.25	
90	17	XQ0143	XQ0145	XQ0146	XQ0147	£30.40	
110	11	XQ0233	XQ0235	XQ0236	XQ0237	£43.36	
110	17	XQ0251	XQ0253	XQ0254	XQ0255	£40.37	
125	11	XQ0287	XQ0289	XQ0290	XQ0291	£60.47	
125	17	XQ0305	XQ0307	XQ0308	XQ0309	£45.58	
160	11	XQ0458	XQ0460	XQ0461	XQ0462	£76.28	
160	17	XQ0476	XQ0478	XQ0479	XQ0480	£55.71	
180	11	XQ0530	XQ0532	XQ0534	XQ0535	£80.77	
180	17	XQ0550	XQ0552	XQ0554	XQ0555	£60.78	

# Mechanical fittings 25 - 63mm



#### Couplers

Diameter	Dorde accombine	Product code	Price
mm	Pack quantity	Product code	each
25	1	XR5244	£9.38
32	1	XR5245	£12.37
63	1	XR5251	£44.08



#### **Equal tees**

Diameter	Darak arramatita	Product code	Price
mm	Pack quantity	Product code	each
25	1	XR5247	£14.09
32	1	XR5248	£17.85
63	1	XR5253	£61.88



#### 90° elbows

Diameter	eter Pack quantity Product code		Price
mm	Pack quantity Product code	Product code	each
25	1	XR5249	£9.86
32	1	XR5250	£14.09
63	1	XR5252	£43.72

# Mechanical fittings 25 - 63mm



#### **Reducers**

Diameter	Dorde accombine	Product code	Price
mm	Pack quantity	Product code	each
32 x 25	1	XR5246	£15.81
63 x 25	1	XR5257	£40.01
63 x 32	1	XR5254	£46.96



#### **End** caps

Diameter	Burde manusite	Donale de la de	Price
mm	Pack quantity	Product code	each
25	1	XR5261	£8.88
32	1	XR5262	£12.20



#### Male adaptors

Diameter	Davida assessible	Product code	Price
mm	Pack quantity	Product code	each
25 x 3/4"	1	XR5235	£5.77
32 x <sup>3</sup> / <sub>4</sub> "	1	XR5236	£8.21
32 x 1"	1	XR5237	£8.35
63 x 1½"	1	XR5258	£27.54
63 x 2"	1	XR5259	£27.54



#### Female adaptors

Diameter	David annuality	Product code	Price
mm	Pack quantity	Product code	each
25 x 3/4"	1	XR5240	£6.58
32 x 3/4"	1	XR5241	£7.90
32 x 1"	1	XR5242	£7.94
63 x 2"	1	XR5260	£30.92



# Redman™ fittings 63 - 180mm



#### **Couplers**

Diameter	Pipe	Pack	Product code	Price
mm	SDR	quantity	Product code	each
63	11	1	RE0001	£78.06
90	11	1	RE0002	£109.27
90	17	1	RE0009	£109.27
110	11	1	RE0003	£160.71
110	17	1	RE0010	£160.71
125	11	1	RE0004	£249.63
125	17	1	RE0005	£244.73
160	17	1	RE0007	£327.68
180	11	1	RE0008	£349.40
180	17	1	RE0047	£342.52



#### **Repair couplers**

Diameter	Pipe	Pack	Product code	Price
mm	SDR	quantity	Product code	each
63	11	1	RE0065	£188.26
90	11	1	RE0064	£211.95
90	17	1	RE0067	£211.95
110	11	1	RE0066	£275.30
110	17	1	RE0069	£275.30
125	17	1	RE0071	£326.85
160	17	1	RE0078	£560.62
180	17	1	RE0080	£721.54

#### 90° elbows



Diameter	Pipe	Pack	Product code	Price
mm	SDR	quantity	Product code	each
63	11	1	RE0011	£167.09
90	11	1	RE0012	£274.05
90	17	1	RE0013	£274.05
110	11	1	RE0014	£299.62
110	17	1	RE0015	£299.62
125	17	1	RE0017	£382.38
160	17	1	RE0019	£561.88
180	17	1	RE0021	£715.17

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#### 45° elbows

Diameter	Pipe	Pack	Product code	Price
mm	SDR	quantity	Product code	each
63	11	1	RE0032	£160.49
90	11	1	RE0033	£271.87
90	17	1	RE0034	£271.87
110	11	1	RE0035	£298.37
110	17	1	RE0036	£298.37
125	17	1	RE0038	£372.25
160	17	1	RE0040	£595.05
180	17	1	RE0045	£689.82

# **Redman<sup>™</sup> fittings** 63 - 180mm



#### Flange adaptors NP16

Diameter	Pipe	Pack	Dural control	Price
mm	SDR	quantity	Product code	each
63 x DN50	11	1	RE0073	£120.63
63 x DN80	11	1	RE0083	£155.81
90 x DN80	11	1	RE0074	£158.84
90 x DN80	17	1	RE0075	£158.84
110 x DN 100	11	1	RE0076	£176.38
110 x DN 100	17	1	RE0077	£176.38
125 x DN 100	11	1	RE0084	£257.30
125 x DN 100	17	1	RE0079	£247.04
160 x DN 150	17	1	RE0081	£308.80
180 x DN 150	11	1	RE0087	£382.38
180 x DN150	17	1	RE0089	£374.86



#### **Adaptors**

Diameter	Pipe	Pack	Product code	Price
mm	SDR	quantity	Froducti code	each
63 x 1½" BSPF /2" BSPM	11	1	RE0123	£87.01

# Electrofusion fittings 90 - 180mm



#### **Couplers**

Diameter	Pack	Product code	Price
mm	quantity	Product code	each
90	1	WA0210	£11.30
110	1	WA0211	£18.45
125	1	WA0212	£20.68
160	1	WA0214	£34.78
180	1	WA0215	£38.55



#### 45° elbows

Diameter	Pack	Product code	Price
mm	quantity	Product code	each
90	1	WA3318	£26.99
110	1	WA3319	£35.00
125	1	WA3320	£48.38
160	1	WA3322	£104.99
180	1	WA3323	£112.33



#### 90° elbows

Diameter	Pack	Product code	Price
mm	quantity	Product code	each
90	1	WA3347	£25.93
110	1	WA3348	£34.46
125	1	WA3349	£42.33
160	1	WA3351	£104.99
180	1	WA3352	£112.33

# **Electrofusion fittings** 90 - 180mm



#### **Equal tees**

Diameter	Pack	Product code	ıck Price	Price
mm	quantity	Product code	each	
90	1	WA2210	£36.16	
110	1	WA2211	£46.65	
125	1	WA2212	£61.63	
160	1	WA2214	£101.61	
180	1	WA2215	£134.51	



#### Reducers

Diameter	Pack	Product code	Price
mm	quantity	Product code	each
110 x 90	1	WA4286	£38.02
125 x 90	1	WA4289	£36.51
125 x 110	1	WA4291	£60.43
160 x 110	1	WA4294	£64.39
180 x 125	1	WA4297	£67.24

# **Off-take connections**



#### **Tapping tees**

Diameter	Pack	Product code	Price
mm	quantity	Product code	each
63 x 25	1	XR5111	£97.69
90 x 25	1	XR5112	£106.77
110 x 25	1	XR5113	£106.77
125 x 25	1	XR5114	£106.77
160 x 25	1	XR5115	£137.87
180 x 25	1	XR5116	£137.87
63 x 32	1	XR5117	£113.24
90 x 32	1	XR5118	£120.43
110 x 32	1	XR5119	£120.43
125 x 32	1	XR5120	£120.43
160 x 32	1	XR5121	£150.17
180 x 32	1	XR5122	£150.17



#### Ferrule adaptors

Diameter	Pack	Donald and and a	Price
mm	quantity	Product code	each
25 x 3/4"	1	XR5055	£41.53

# Fabricated fittings



#### Flange adaptors NP16

Diameter	Pipe	Pack	Product code	Price
mm	SDR	quantity	Product code	each
63 x DN80	11	1	XR0290	£197.68
90 x DN80	11	1	XRO291	£230.80
90 x DN80	17	1	XR0300	£219.76
110 x DN 100	11	1	XRO310	£303.47
110 x DN 100	17	1	XR0303	£252.90
125 x DN 100	11	1	XRO311	£409.49
125 x DN 100	17	1	XRO301	£341.24
160 x DN 150	11	1	XRO312	£528.75
160 x DN 150	1 <i>7</i>	1	XR0304	£440.62
180 x DN 150	11	1	XRO313	£595.01
180 x DN 150	17	1	XR0302	£495.84



# **Tooling**



#### C ring wrenches

Pipe diameter	Pack	Product code	Price
mm	quantity	Product code	each
25 - 32	1	XR4998	£9.94
63	1	XR4999	£49.70



#### Hydraulic pump

Description	Pack	Product code	Price
mm	quantity		each
Redman™ fittings hydraulic pump	1	XRO211	£694.62



#### Biodegradable hydraulic oil

Description	Pack	Product code	Price
mm	quantity		each
Hydraulic oil for Redman™ pump 5 litres	1	XRO212	£50.80



#### Tapping tee key

Description	Pack	Product code	Price
mm	quantity		each
3/8″ T key	1	XRO215	£28.82





Radius Systems are a market leader in the innovation and manufacture of plastic pipe systems for the utilities and construction industries. With extensive research and development at the heart of our products and systems, we take care of the entire pipe life cycle - from design and manufacture through to live connections and rehabilitation. We strive to improve industry practices, with good health and safety policies at the forefront of our philosophy of 'getting it right first time'. Our continuous customer inspired research and development, combined with successful customer partnerships represent our total dedication to the plastic piping industry.

- Manufacturing facilities With 2 production sites in the UK, we have complete control over quality and the ability to meet our customers' expectations.
- Innovative approach We are leaders in our field with a history of research and new product development. Practicality, durability and adaptability are all high on our agenda to meet our clients' needs.
- Flexible product and service provision Our comprehensive range of services is designed to fit the variable demands of our clients' developments in pipes, fittings, training and support services.
- Reliability and safety With 50 years experience in pipe design and manufacture, our clients know that they can count on us to meet not just their product and service needs, but also their delivery and safety requirements.
- Great customer service We have a dedicated Customer
  Services team to answer queries from our customers in the
  UK and overseas. Our service is not just about the delivery of
  products contact our team if you have a product or installation
  enquiry or a post-delivery query.

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