

PIPES FOR GAS



POLYETHYLENE GAS PIPES

ENGINEERED PIPE SOLUTIONS FOR MODERN GAS PIPELINE NETWORKS

As well as providing solid wall PE pipes for new installations and pipeline rehabilitation, Radius Systems have developed a range of solutions for metallic service pipe relining and a peelable pipe, ProFuse®, specially designed for use in open-cut and no-dig installations. Below is a summary of our pipe range with their key applications.

Pipe type	Application and suitability
SC80 yellow	• A solid wall PE80 pipe with a black inner and a yellow outer. • Approved to GIS/PL2-2 and BS EN 1555-2. • Used for new pipelines, network rehabilitation and pipe replacement. • Installed using open-cut or no-dig techniques.
SC100 orange	• A solid wall PE100 pipe with a black inner and an orange outer. • Approved to GIS/PL2-8 and BS EN 1555-2. • Used for new pipelines, network rehabilitation and pipe replacement. • Installed using open-cut or no-dig techniques.
ProFuse®	• A multi-layer pipe, manufactured from black PE100 and a yellow peelable polypropylene outer skin with stripes. • Approved to GIS/PL2-2 and BS EN 1555-2. • Used for new pipelines, network rehabilitation and pipe replacement. • Ideally suited for no-dig and open-cut installation techniques.
HY100	• A solid wall, single layer co-extruded pipe. • Approved to the UK Gas Industry specification GIS/PL2-2. • Manufactured from a PE100 black core and a PE80 yellow outer • For low and medium pressure gas pipeline projects with 2 bar MOP.
ServiFlex®	• A flexible twin-wall pipe manufactured from yellow PE80. • MOP 75 millibar. • Used for 1" steel pipe relining. • Installed using the no-dig insertion technique.
17.5 mm relining system	• Manufactured from PE80 with a black inner and a yellow outer. • Approved to GIS/PL2-2 (PE80 pipe), GIS/PL3 (service head adaptor) and GIS/PL2-4 (electrofusion reducer). • MOP 75 millibar. • Used for ¾" metallic pipe relining. • Installed using the no-dig insertion technique.

MOP = Maximum operating pressure.

For guidance on the MOP for our range of gas pipes, please contact Radius Systems.

SC80 SOLID WALL PE80 PIPE

The flexible service pipe solution for gas distribution.

Our range of SC80 gas pipes are innovative solid wall polyethylene pipes developed as part of Radius Systems' continuous product improvement process and are the ideal solution for the construction of gas pipelines.

Manufactured using a specialist co-extrusion technology, the pipe is produced as a single pipe wall construction with a black inner and an integral colour coded yellow outer, denoting the pipe's material and application.

Available in diameters 20 to 315 mm in a range of SDRs and pressure ratings to suit your gas pipeline project, our SC80 gas pipes can be joined using industry standard electrofusion and butt-fusion welding techniques.

Ideally suited for new pipeline installations, close-fit legacy pipe rehabilitation and pipe replacement projects, our SC80 gas pipes can be used in open-cut or no-dig installation techniques.



Features and Benefits

- Yellow colour coded outer to easily identify the pipe material and its application.
- Longer coil lengths reducing the number of joints in the pipeline.
- Flexible and easy to install.
- Corrosion free material for longer life.
- Fully compatible with approved electrofusion and spigot fittings.
- Joined using conventional electrofusion and butt-fusion techniques.
- Simple pipe surface preparation for electrofusion jointing using industry approved tooling.
- Suitable for open-cut and no-dig installation techniques.
- Ideal for use in pipe rehabilitation projects.

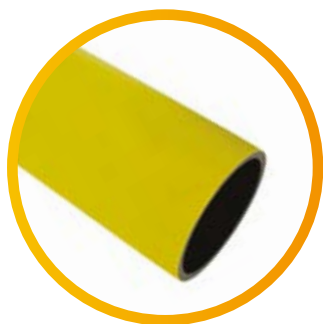


Approvals

- GIS/PL2-2 (KM 513530)
- BS EN 1555-2 (KM 575728)



Product Range



SC80 pipe

Our SC80 pipes are manufactured from PE80 materials and are easily identifiable by their yellow coloured outer surface. Manufactured in sizes 20 to 315 mm as standard, in straight or coiled pipe, SC80 pipe are available in SDR9, 11, 13.6 and 17.6. For special projects requiring bespoke pipe diameters, SDRs and lengths, please contact Radius Systems.

Nominal diameter	SDR	Product code straight pipe		Product code coiled pipe					Weight
		6m	12m	50m	100m	150m	250m	500m	
mm									kg/m
20	9	-	-	-	FA0022	-	-	-	0.1
25	11	FA0026	-	FA0028	FA0029	-	-	-	0.2
32	11	FA0033	-	FA0035	FA0036	-	-	-	0.3
40	11	-	-	-	FA0041	-	-	-	0.5
63	11	FA0068	-	FA0071	FA0072	FA0073	-	-	1.1
75	11	FA0092	-	FA0094	FA0096*	-	FA0098	FA0091	1.5
90	11	FA0125	-	-	FA0129	-	-	-	2.2
125	11	FA0287	-	FA0290	FA0291	-	-	-	4.3
180	11	FA0530	FA0532	FA0534	FA0535	-	-	-	8.8
63	13.6	FA0076	-	FA0079	FA0080	FA0081	FA0082	FA0083	0.9
75	13.6	FA0100	-	-	FA0104*	-	FA0106	FA0107	1.3
90	17.6	FA0152	FA0154	FA0155	FA0156	FA0157	FA0158	FA0159	1.5
125	17.6	FA0314	FA0316	FA0317	FA0318	FA0319	-	-	2.8
140	17.6	FA0368	-	-	FA0372	-	-	-	3.5
180	17.6	FA0560	FA0562	FA0564	FA0565	-	-	-	5.8
250	17.6	FA0793	FA0796	-	-	-	-	-	11.1
315	17.6	FA1012	FA1014	-	-	-	-	-	17.5

Note:

- * Supplied in 120 m coils.
- Pipe weights shown are for lifting and handling purposes. They are based on the gas industry specification's maximum pipe diameter and wall thickness.
- For guidance on maximum operating pressures, please contact Radius Systems.



SC100 SOLID WALL PE100 PIPES

The high performance PE pipe for intermediate pressure pipelines.

Our range of SC100 gas pipes are innovative solid wall polyethylene pipes developed as part of Radius Systems' continuous product improvement process and are the ideal solution for the construction of gas pipelines.

Manufactured using specialist co-extrusion technology, the pipe is produced as a single pipe wall construction with a black inner and an integral colour coded orange outer, denoting the pipe's material and application.

Available in diameters 63 to 500 mm in SDR11 or SDR17.6 for pressure ratings to suit your pipeline requirements, our SC100 pipe can be joined using standard electrofusion and butt-fusion welding techniques.

Ideally suited for new pipeline installations, close-fit legacy pipe rehabilitation and pipe replacement projects, our SC100 gas pipes can be installed using open-cut or no-dig installation techniques.



Features and Benefits

- Orange colour coded outer to easily identify the pipe material and its application
- Fully compatible with approved electrofusion and spigot fittings.
- Joined using conventional electrofusion and butt-fusion techniques.
- Simple pipe surface preparation for electrofusion jointing using industry approved tooling.
- Suitable for open-cut and no-dig installation techniques.
- Ideal for use in pipe rehabilitation projects.



Approvals

- GIS/PL2-8 (KM 513620) - pressure rating up to 7 bar
- BS EN 1555-2 (KM 575728) - pressure rating up to 10 bar



Product Range



SC100 pipe

Our SC100 pipes are manufactured from PE100 materials and are easily identifiable by their orange coloured outer surface. Manufactured in sizes 63 to 630 mm in straight or coiled pipe, SC100 pipes are available in SDR11 and SDR17.6. For special projects requiring bespoke pipe diameters, SDRs and lengths, please contact Radius Systems.

Nominal diameter mm	SDR	Product code straight pipe		Product code coiled pipe	Weight
		6m	12m	100m	kg/m
63	11	-	FC0069	FC0072	1.1
90	11	-	FC0127	FC0129	2.3
125	11	-	FC0289	FC0291	4.3
180	11	-	FC0532	FC0535	8.9
250	11	-	FC0769	-	17.1
315	11	-	FC0988	-	27.2
355	11	-	FC1047	-	34.6
400	11	FC1104	FC1107	-	43.9
450	11	FC1219	FC1221	-	55.4
500	11	FC1327	FC1329	-	68.5
90	17.6	-	FC0154	FC0156	1.5
125	17.6	-	FC0316	-	2.8
180	17.6	-	FC0562	-	5.9
250	17.6	-	FC0796	-	11.2
315	17.6	-	FC1015	-	17.7
355	17.6	-	FC1074	-	22.6

Note: Pipe weights shown are for lifting and handling purposes. They are based on the gas industry specification's maximum pipe diameter and wall thickness.



PROFUSE® PEELABLE PIPE

Maximum jointing integrity for asset longevity and installation cost savings.

ProFuse® is a technologically advanced peelable pipe innovation for the transportation of natural and suitable manufactured gases in buried pipeline applications, offering a high performance solution with optimum joint integrity, damage protection and reduced installation time and costs to asset owners.

Manufactured from black PE100, ProFuse® has been designed with a unique polypropylene peelable skin, which is applied to the core pipe during the manufacturing process using melt on melt technology. The skin is tough and offers excellent abrasion resistance to protect the pipe during handling, transportation and installation. It is easily removed, using the pipe exposure tool (PET™), revealing a pristine pipe surface, ready to be joined using electrofusion or butt-fusion welding techniques.

Ideal for open cut, dead or live insertion, horizontal directional drilling and pipe bursting installation techniques, ProFuse® is a superior pipe solution, especially suited to no-dig installation techniques, as its tough protective skin absorbs damage normally associated with those installation methods.

Designed for maximum jointing integrity, ProFuse® is the perfect solution for reduced installation costs, optimum joint quality, system reliability and confidence in the longevity of your pipeline.



Features and Benefits

- **Unique external skin**
Specifically developed with an external skin to minimise damage to the core pipe. The tough polypropylene skin offers excellent abrasion resistance to protect the pipe during handling, storage, transportation and installation.
- **Installation damage protection**
Ideally suited for trenchless installation techniques such as pipe insertion, pipe bursting and horizontal directional drilling.
- **Optimum joint integrity**
The ProFuse® peelable skin is removed locally with the PET tool, revealing a pipe surface in pristine condition, ready for jointing.
- **Reduced installation time**
The peelable skin is easily removed, reducing pipe surface preparation time for electrofusion jointing compared to conventional PE pipe.

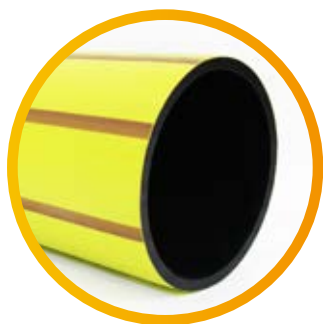


Approvals

- GIS/PL2-2 (KM 513530)
- BS EN 1555-2 (KM 575728)



Product Range



ProFuse® pipe

Nominal diameter	SDR	Product code straight pipe		Weight
		6m	12m	
mm				kg/m
180	17.6	-	FE0562	6.5
250	17.6	-	FE0796	12.3
315	17.6	-	FE1015	19.1
400	17.6	-	FE1134	30.4
250	21	FE0802	FE0805	10.6
280	21	FE0910	FE0912	13.1
315	21	FE1020	FE1023	16.4
355	21	FE1079	FE1082	20.6
400	21	FE1140	FE1143	25.9
450	21	FE1251	FE1253	32.4
500	21	FE1359	FE1361	39.9
630	21	FE1471	FE1473	62.6

Note:

- Pipe weights shown are for lifting and handling purposes. They are based on the gas industry specification's maximum pipe diameter and wall thickness.
- For special projects requiring bespoke pipe diameters, SDRs and lengths, please contact Radius Systems.
- For guidance on maximum operating pressures, please contact Radius Systems.

The ProFuse® Pipe Exposure Tool (PET)

The only tool recommended for the quick, simple and safe removal of the ProFuse® skin. The hardened steel blade cuts the ProFuse® skin and lifts its edge to allow easy peeling from the pipe core.

- **Single size tool** for all sizes of ProFuse pipe
- **Spring-loaded blade** to minimise damage to the tip of the blade
- **Direction marking** for clear and simple operation
- **Plastic body** lightweight and durable
- **Sculpted runners** for blade protection and precise one handed control



HY100™ HIGH PERFORMANCE PE PIPE

A modern, high performance polyethylene pipe for twenty-first century gas pipeline networks.

Radius Systems' new HY100™ gas pipes have been specifically designed to deliver a complete high performance pipe offering for the construction of below ground low and medium pressure gas pipeline networks.

HY100™ is a pioneering class of co-extruded solid wall polyethylene (PE) pipes which combine the strength of PE100 at its core with a yellow PE80 outer for pipe identification and application recognition. The pipe range has been specifically developed to extend our gas pipe offering and provide our customers with a wider choice of high performance pipe solutions for the construction of gas distribution pipelines.

Our new HY100™ pipes are manufactured using a specialist co-extrusion technique, where the PE100 and PE80 materials are combined using melt-on-melt technology.

The use of PE100 high performance material in the production of HY100™ enables Radius Systems to offer a specially engineered SDR21 pipe solution, with a larger bore for greater gas carrying capacity. In addition, PE100 is a tough material, giving the confidence in a robust gas pipe solution that will last a lifetime.

Joined using industry standard electrofusion and butt-fusion welding techniques, HY100™ pipes are ideally suited for new pipeline installations, close-fit legacy pipe rehabilitation and pipe replacement projects and can be installed using open-cut or no-dig installation techniques.

The HY100™ pipe range is available in diameters 250 to 450 mm and is approved to the UK gas industry specification GIS/PL2-2:2016.

WHY CHOOSE HY100?

High
performance
PE

Fully
weldable

Corrosion
resistance

Pipeline
flexibility

Hydraulic
performance



HY100 at a glance

- A solid wall, single layer co-extruded pipe.
- Manufactured from a PE100 black core and a PE80 yellow outer.
- For low and medium pressure gas pipeline projects with 2 bar MOP.
- Diameter range 250 to 450 mm.
- Approved to the UK Gas Industry specification GIS/PL2-2.
- Used for new pipelines, network rehabilitation and pipe replacement.
- Installed using open-cut or no-dig techniques
- Complemented by a range of approved electrofusion and spigot fittings.



Features and Benefits

- A high performance pipe offering robustness and longevity.
- SDR21 pipe with a larger bore for greater gas carrying capacity
- Flexible and easy to install.
- Corrosion free material for longer life.
- Joined using conventional electrofusion and butt-fusion techniques.
- Simple pipe preparation for electrofusion jointing using rotary or hand scraping tools.
- Fully compatible with approved electrofusion and spigot fittings.
- Suitable for open-cut and no-dig installation techniques.
- Ideal for use in pipeline insertion and rehabilitation schemes.



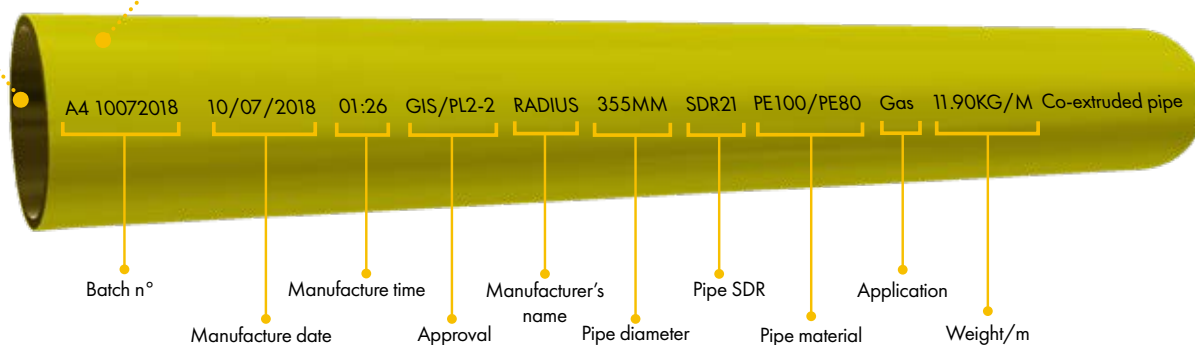
Identifying HY100™

Manufactured from black PE100 and yellow PE80 materials, the pipes are easily identified by the markings on the pipe's outer surface, repeated every meter along its length.



Approvals

- Manufactured in ISO 9001:2015 approved manufacturing facilities.
- GIS/PL2-2:2016 (KM 513530).



Product Range



HY100™ pipe

Nominal diameter	SDR	MOP GIS/PL2:2	Product code		Weight
mm		bar	6m	12m	kg/m
250	21	2	FB0802	FB0805	9.5
280	21	2	FB0910	FB0912	11.9
315	21	2	FB1020	FB1023	15.0
355	21	2	FB1079	FB1082	19.1
400	21	2	FB1140	FB1143	24.1
450	21	2	FB1251	FB1253	30.6

Note: Pipe weights are for lifting and handling purposes. They are based on the pipe maximum diameter and wall thickness as specified in GIS/PL2-2.

Joining and making connections to HY100™

HY100™ are conventional solid wall PE pipes that are joined using industry standard electrofusion or butt-fusion welding techniques.

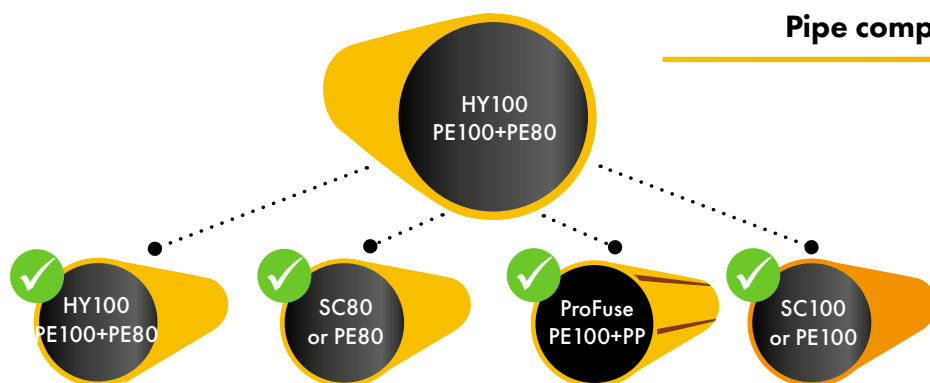
To comply with manufacturers' guidance and the gas industry best practice, butt-fusion jointing in the field is only permitted between pipes of the same diameter, SDR, polyethylene classification and colour. When using the butt-fusion jointing technique, HY100™ should only be joined to HY100 pipes. When connecting HY100™ pipes to other polyethylene pipes, Radius Systems recommend the use of approved electrofusion fittings.

Before making an electrofusion joint, the surface of HY100™ pipe must be prepared using industry approved tooling and techniques to ensure that the pipe is clean and free from contamination.

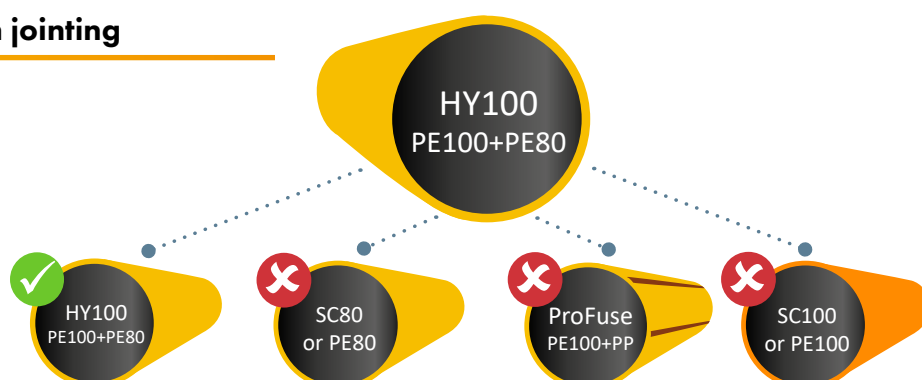
For pipe preparation when using socket electrofusion fittings, Radius Systems recommend the use of rotary pipe preparation tools as they remove a uniform layer of PE from the pipe's surface.

Welding equipment must be calibrated and in good working condition to ensure maximum joint integrity.

Pipe compatibility for electrofusion jointing



Pipe compatibility for butt fusion jointing





SERVICE PIPE RELINING SOLUTIONS

A no-dig pipe relining solutions for minimal disruption.

Conventional PE pipes have been routinely used by utility companies as a relining solution to address their ageing metallic mains. Service pipes, often installed under footpaths and gardens have been a challenge to reline, due to the complexity of their layout, the changes in the pipe direction from the main to the gas meter and the numerous fittings used in the service pipe.

Working closely with our utility customers, we have developed a range of advanced PE pipeline solutions for the rehabilitation of 1" and 3/4" metallic services using pipe insertion techniques. Unique to Radius Systems, our 20 mm ServiFlex® and 17.5 mm systems are innovative pipe relining solutions specifically engineered to maintain the leak-tightness of the service and at the same time, limiting the pipe pressure loss from the main to the meter.

Installed using no-dig pipe insertion techniques for minimal disruption to customers, our ServiFlex® and 17.5 mm kits are quick and easy to install and combined with our PE mains pipe offering, deliver a smart pipe rehabilitation alternative to traditional pipeline replacement from main to meter.



Features and Benefits

- **Cutting-edge offering**
Unique engineered metallic service pipe relining solutions to maintain the integrity of the service pipe.
- **Optimum leak-tightness**
The host pipe provides structural stability, whilst the PE liner provides leak-tightness.
- **Reduced number of joints in the system**
The PE pipes are flexible and can accommodate changes in direction of the original service pipe without the need for additional fittings. ServiFlex® easily passes through 1" short radius bends and our 17.5 mm system can negotiate 3/4" long radius bends.
- **Reduced disruption to customers**
The pipe lining solutions are installed using no-dig insertion techniques, reducing disruption to utility customers.
- **Designer pipe solutions**
Specifically designed to be inserted into 1" and 3/4" metallic service pipes and negotiate bends without the need for additional fittings.



Approvals

- 17.5 mm system
 - 17.5 mm pipe GIS/PL2-2 (KM 513530)
 - Service head adaptor GIS/PL3 (KM 539621)
 - Electrofusion reducer GIS/PL2-4 (KM 538462)

Product Range



ServiFlex® relining system

Unique to Radius Systems, ServiFlex® is a leading edge innovation consisting of a PE80 twin wall corrugated flexible pipe liner system specifically designed for the relining of 1" steel service pipes.

Quick and easy to install using pipe insertion techniques, ServiFlex® is a cost effective solution compared to pipe replacement, as excavations are kept to a minimum size, with little disruption to customers. Lightweight and flexible, ServiFlex® can be easily pushed through short radius bends during relining operations.

Nominal diameter	MOP	Product code	Weight
mm	millibar	6m	kg/coil
20	75	FA0017	2.5

Installation requirements: Radius Systems' ServiFlex® pipe relining system is installed using a pipe pushing technique. Specialist tooling is required to carry out the installation.

Training must be undertaken before carrying out the installation of ServiFlex®. Please contact Radius Systems for more information. t: +44 (0)1773 811112 or e: sales@radius-systems.com.



17.5 mm relining system

Specially manufactured by Radius Systems, the 17.5 mm system has been designed to offer a smart and easy solution for relining ¾" metallic service pipes with long radius bends. Our House Entry Kits are ideal for relining service pipes under gardens and footpaths, as they minimise the requirement for service relays and are supplied with all the appropriate electrofusion fittings and service head adaptors for inside the property. Flexible and easy to install, our 17.5 mm relining kits reduce excavation requirements and the need for meter relocation.

Nominal diameter	Description	SDR	MOP	Coil length	Product code	Weight
mm			millibar	m	6m	kg/coil
17.5	House entry kit	9.7	75	8.4	GZ0037	0.1

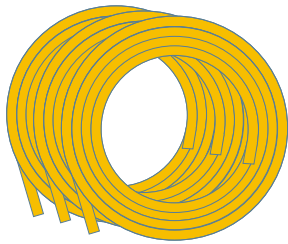
- **House entry kit:** 8.4 m of 17.5 mm pipe coil with wire cable, one 17.5 mm x ¾" service head adaptor for inside the property, one 17.5 x 32 mm reducer for the garden connection.

Installation requirements: Radius Systems' 17.5 mm pipe relining system is installed using a pipe pushing technique. Specialist tooling is required to carry out the installation.

Training must be undertaken before carrying out the installation of the system. Please contact Radius Systems for more information. t: +44 (0)1773 811112 or e: sales@radius-systems.com.

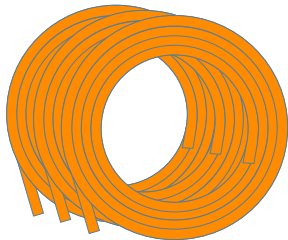
Coil pack quantity and dimensions

Coil pack quantity



SC80 solid wall PE80 pipes

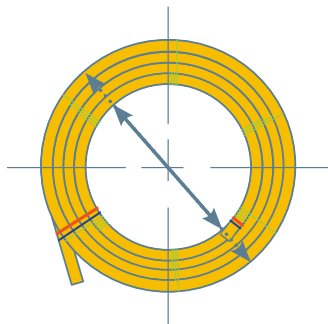
Pipe nominal diameter	Pack quantity	Total pack length	Pack quantity	Total pack length	Pack quantity	Total pack length	Pack quantity	Total pack length
mm	50 m	m	100 m	m	150 m	m	250 m	m
25	8	400	7	700	-	-	-	-
32	8	400	4	400	-	-	-	-
40	-	-	6	600	-	-	-	-
63	6	300	4	400	3	450	2	500



SC100 solid wall PE100 pipes

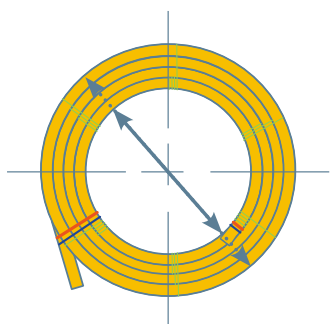
Pipe nominal diameter	Pack quantity	Total pack length	Pack quantity	Total pack length	Pack quantity	Total pack length	Pack quantity	Total pack length
mm	50 m	m	100 m	m	150 m	m	250 m	m
63	-	-	4	400	-	-	-	-

Coil dimensions



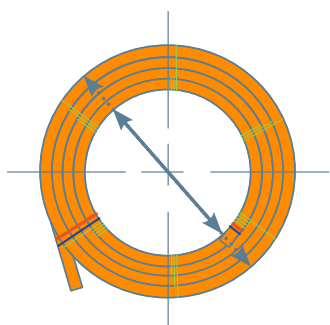
SC80 solid wall PE80 pipes

Pipe nominal diameter	SDR	Coil length	Coil outer diameter	Coil inner diameter	Coil width	Coil banding sequence	Coil weight
mm		m	mm	mm	mm		kg
20	9	50	780	600	100	-	7.1
20	9	100	885	600	120	-	14.2
25	11	50	780	600	150	-	9.1
25	11	100	910	600	175	-	18.2
32	11	50	990	700	145	-	14.7
32	11	100	990	700	275	-	29.3
40	11	100	1800	1275	170	-	45.3
63	11	50	1815	1275	195	•	55.1
63	11	100	1810	1275	300	•	110.3
63	11	150	2035	1275	345	•	165.4
63	11	250	2100	1275	470	•	275.7
63	11	500	2800	1800	570	•	551.3
75	11	50	2220	1800	255	•	76.9
75	11	120	2350	1800	340	•	184.6
75	11	250	2475	1800	535	•	384.6
75	11	500	3120	1800	565	•	769.3
90	11	50	2220	1800	320	•	111.6



SC80 solid wall PE80 pipes - continued

Pipe nominal diameter	SDR	Coil length	Coil outer diameter	Coil inner diameter	Coil width	Coil banding sequence	Coil weight
mm		m	mm	mm	mm		kg
90	11	100	2440	1800	410	•	223.3
125	11	100	3200	2500	570	•	428.2
180	11	100	4000	3000	800	•	883.9
63	13.6	50	1815	1275	195	•	46.7
63	13.6	100	1810	1275	300	•	93.4
63	13.6	150	2035	1275	345	•	140.1
63	13.6	250	2100	1275	470	•	233.4
63	13.6	500	2800	1800	570	•	466.9
75	13.6	120	2350	1800	340	•	158.2
75	13.6	250	2475	1800	535	•	329.6
75	13.6	500	3120	1800	565	•	659.2
90	17.6	50	2220	1800	320	•	74.5
90	17.6	100	2440	1800	450	•	149
90	17.6	150	2400	1800	625	•	223.5
90	17.6	250	2600	1800	620	•	372.5
90	17.6	500	3075	1800	855	•	744.9
125	17.6	50	3000	2500	450	•	140.5
125	17.6	100	3200	2500	570	•	281
125	17.6	150	3200	2500	820	•	421.5
140	17.6	100	3765	3000	630	•	350.3
180	17.6	50	3800	3000	600	•	290.7
180	17.6	100	4000	3000	800	•	581.5

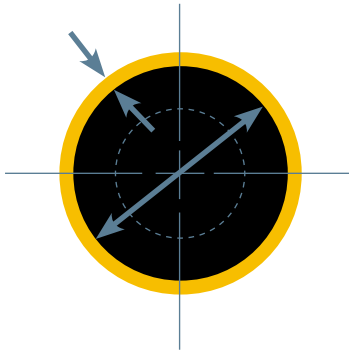


SC100 solid wall PE100 pipes

Pipe nominal diameter	SDR	Coil length	Coil outer diameter	Coil inner diameter	Coil width	Coil banding sequence	Coil weight
mm		m	mm	mm	mm		kg
63	11	100	1810	1275	300	•	111.43
90	11	100	2440	1800	410	•	225.6
125	11	100	3200	2500	570	•	432.8
180	11	100	4000	3000	800	•	893.2
90	17.6	100	2440	1800	450	•	150.6

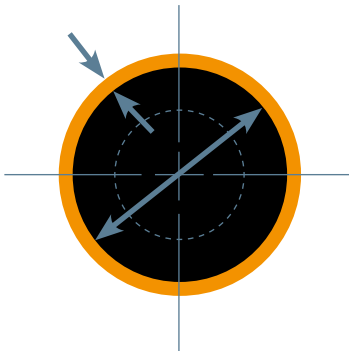
Note: The coil banding sequence can be found within this brochure. As part of Radius Systems' commitment to ongoing product development, pipe coil dimensions may be subject to change.

Pipe dimensions



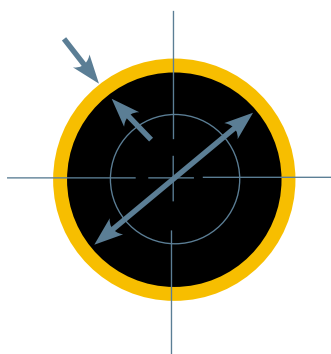
SC80 solid wall PE80 pipes

Nominal diameter	SDR	Mean outside diameter		Wall thickness		Mean internal Diameter
		Min	Max	Min	Max	
mm		mm	mm	mm	mm	mm
20	9	20.0	20.3	2.3	2.7	15.2
25	11	25.0	25.3	2.3	2.7	20.2
32	11	32.0	32.3	3.0	3.4	25.8
40	11	40.0	40.4	3.7	4.2	32.3
63	11	63.0	63.4	5.8	6.5	50.9
75	11	75.0	75.5	6.8	7.6	60.9
90	11	90.0	90.6	8.2	9.2	72.9
125	11	125.0	125.8	11.4	12.7	101.3
180	11	180.0	181.1	16.4	18.2	146.0
63	13.6	63.0	63.4	4.7	5.4	53.1
75	13.6	75.0	75.5	5.6	6.4	63.3
90	17.6	90.0	90.6	5.2	5.9	79.2
125	17.6	125.0	125.8	7.1	8.0	110.3
140	17.6	140.0	140.9	8.0	8.9	123.6
180	17.6	180.0	181.1	10.3	11.5	158.8
250	17.6	250.0	251.5	14.2	15.8	220.8
315	17.6	315.0	316.9	17.9	19.8	278.3



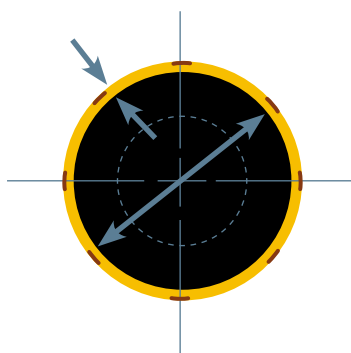
SC100 solid wall PE100 pipes

Nominal diameter	SDR	Mean outside diameter		Wall thickness		Mean internal Diameter
		Min	Max	Min	Max	
mm		mm	mm	mm	mm	mm
63	11	63.0	63.4	5.8	6.5	50.9
90	11	90.0	90.6	8.2	9.2	72.9
125	11	125.0	125.8	11.4	12.7	101.3
180	11	180.0	181.1	16.4	18.2	146.0
250	11	250.0	251.5	22.7	25.1	203.0
315	11	315.0	316.9	28.6	31.6	255.8
355	11	355.0	357.2	32.3	35.7	288.1
400	11	400.0	402.4	36.4	40.2	324.6
450	11	450.0	452.7	40.9	45.1	365.4
500	11	500.0	503.0	45.5	50.2	405.8
90	17.6	90.0	90.6	5.2	5.9	79.2
125	17.6	125.0	125.8	7.1	8.0	110.3
180	17.6	180.0	181.1	10.3	11.5	158.8
250	17.6	250.0	251.5	14.2	15.8	220.8
315	17.6	315.0	316.9	17.9	19.8	278.3
355	17.6	355.0	357.2	20.2	22.4	313.5



HY100 pipes

Nominal diameter	SDR	Mean outside diameter		Wall thickness		Mean internal Diameter
		Min	Max	Min	Max	
mm		mm	mm	mm	mm	mm
250	21	250	251.5	11.9	13.2	225.7
280	21	280	281.7	13.3	14.8	252.8
315	21	315	316.9	15.0	16.6	284.4
355	21	355	357.2	16.9	18.7	320.5
400	21	400	402.4	19.0	21.0	361.2
450	21	450	452.7	21.4	23.7	406.3



ProFUSE® pipes

Nominal diameter	SDR	Mean outside diameter				Skin thickness		Wall thickness		Mean internal diameter
		Without skin		With skin						
		Min	Max	Min	Max	Min	Max	Min	Max	
mm		mm	mm	mm	mm	mm	mm	mm	mm	mm
180	17.6	180.0	181.1	181.2	183.5	0.6	1.2	10.3	11.5	158.8
250	17.6	250.0	251.5	251.2	254.5	0.6	1.5	14.2	15.8	220.8
315	17.6	315.0	316.9	316.2	319.9	0.6	1.5	17.9	19.8	278.3
400	17.6	400.0	402.4	401.2	405.4	0.6	1.5	22.8	25.2	353.2
250	21	250.0	251.5	251.2	254.5	0.6	1.5	11.9	13.2	225.7
280	21	280.0	281.7	281.2	284.7	0.6	1.5	13.3	14.8	252.8
315	21	315.0	316.9	316.2	319.9	0.6	1.5	15.0	16.6	284.4
355	21	355.0	357.2	356.2	360.2	0.6	1.5	16.9	18.7	320.5
400	21	400.0	402.4	401.2	405.4	0.6	1.5	19.0	21.0	361.2
450	21	450.0	452.7	451.2	455.7	0.6	1.5	21.4	23.7	406.3
500	21	500.0	503.0	501.2	506.0	0.6	1.5	23.8	26.3	451.4
630	21	630.0	633.8	631.2	636.8	0.6	1.5	30.0	33.1	568.8

Note: The mean internal diameter is based on the gas industry specification and is provided for guidance only.
Mean internal diameter = [mean external diameter] - [2 x mean pipe wall thickness].