

# 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.



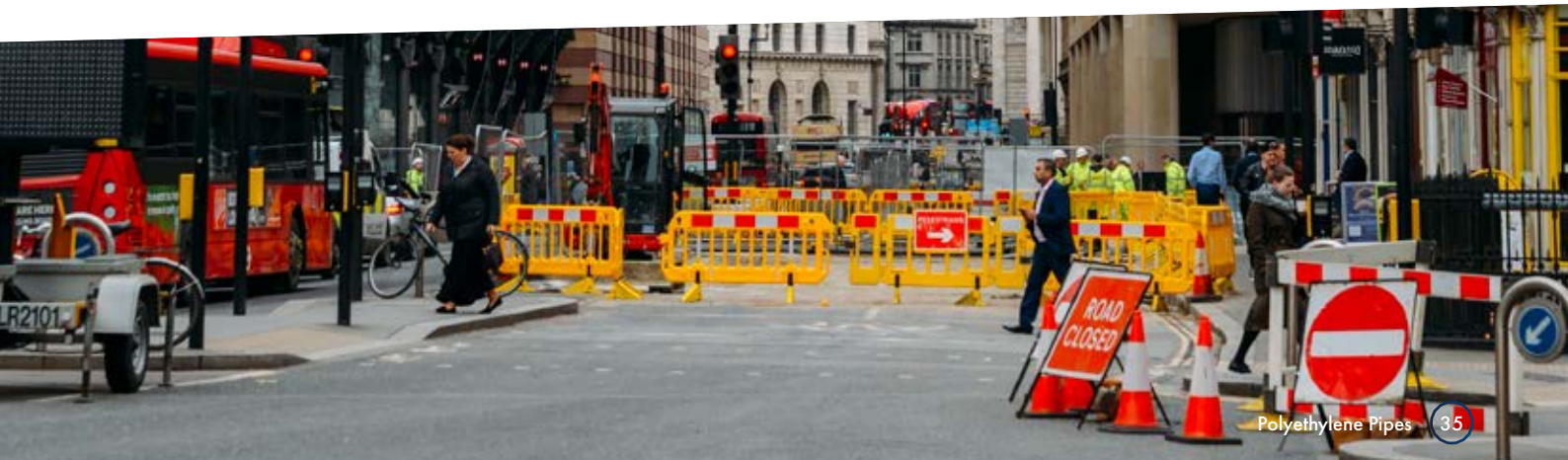
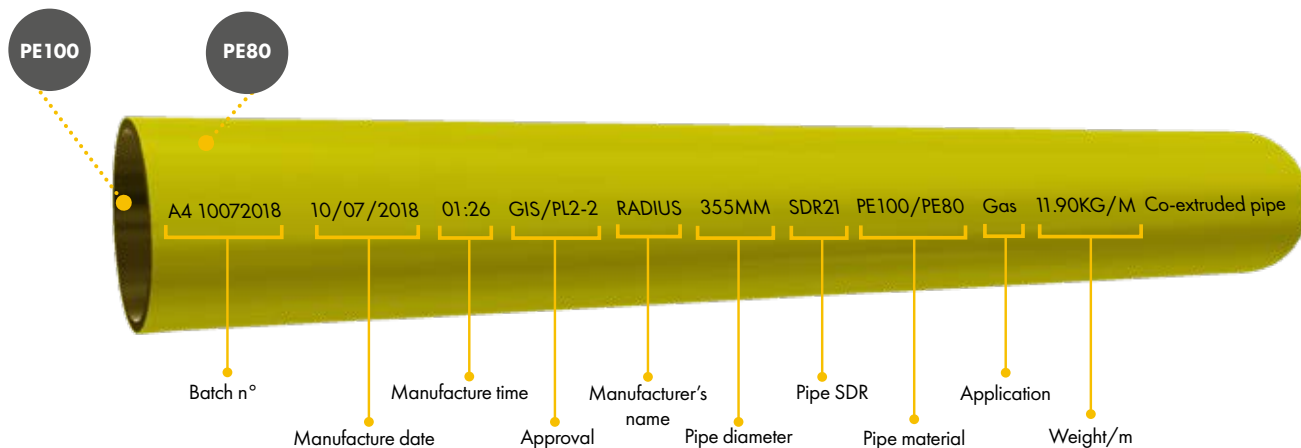
## Identifying HY100™

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.

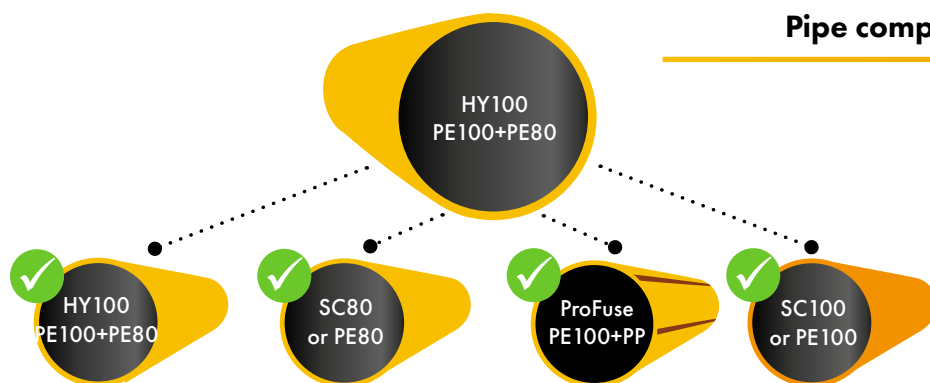
To comply with manufacturers' guidance and the gas industry best practice, butt-fusion jointing in the field is only permitted between pipes of the same diameter, SDR, polyethylene classification and colour. When using the butt-fusion jointing technique, HY100™ should only be joined to HY100 pipes. When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

