



# Sureline<sup>®</sup>

Light, flexible and earthquake-proof, PE 100-RC Sureline<sup>®</sup> pipes ensure safe and reliable operation and can be used in sandbed-free installation sites.



For more information about Agru America and our products, visit [agruamerica.com](http://agruamerica.com)



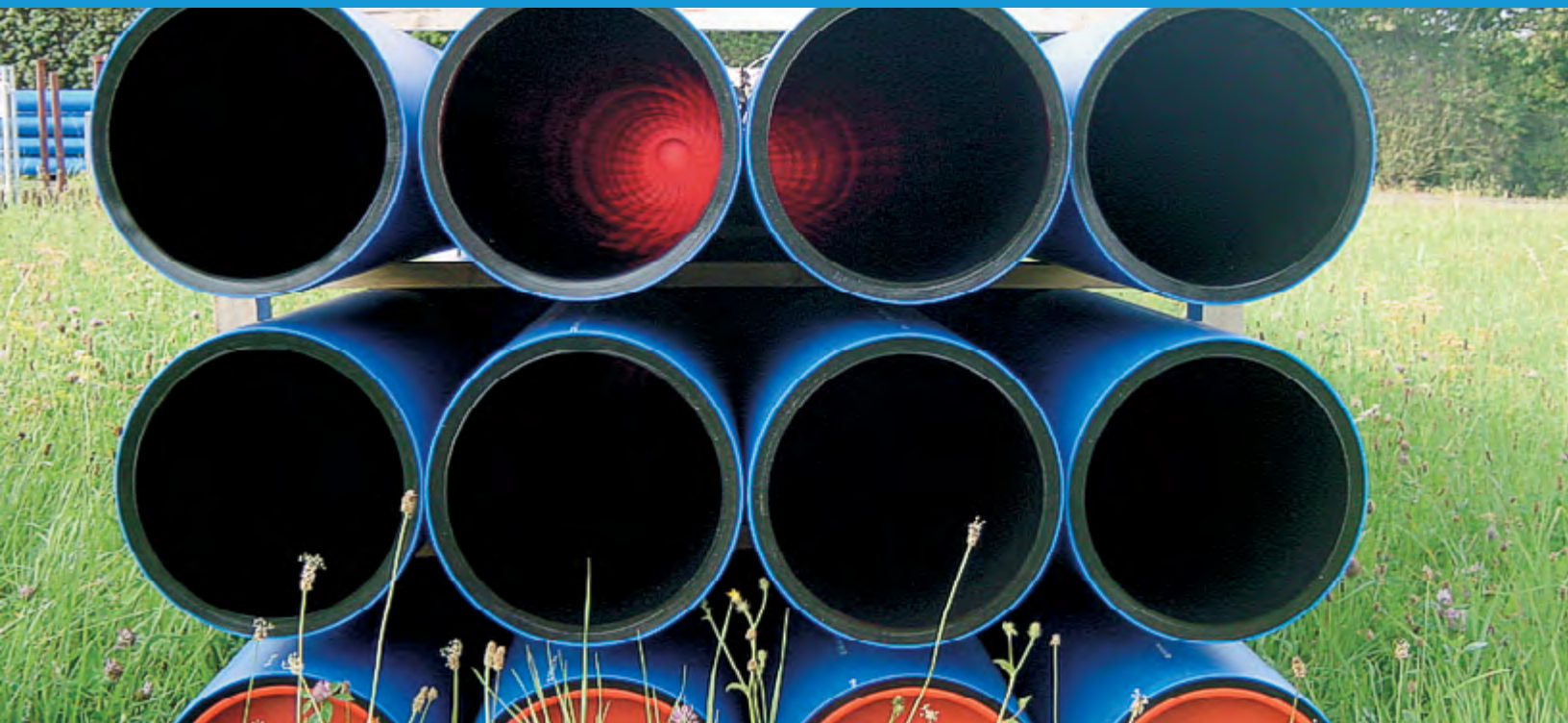
## Worldwide Competence in Plastics and Geosynthetics

As an international manufacturer of innovative geosynthetic products, Agru America is always prepared to meet special challenges with powerful solutions. From waste management and water conservation to mining and energy, we develop the highest quality plastics solutions for the right applications. Our competency extends into the production and sales of high-quality thermoplastic polymer products with a special capability in polyethylene (PE) piping systems.

Our AGRULINE® product group offers a complete range of pipes, fittings, valves and special parts, and our primary focus is the safe and environmentally-friendly supply of natural gas and potable water as well as the disposal of wastewater.

In order to fulfill the requirements of alternative installation technologies, including trenchless techniques and installation without sand embedding, it is essential to use the best quality material available. Our range of Sureline® pipes, which are made from PE 100-RC, meet even the most stringent requirements.

Figure 1: Sureline®







## Advanced Materials for Advanced Applications

Figure 2: Sureline® Installation

### Sureline® [PE 100-RC]

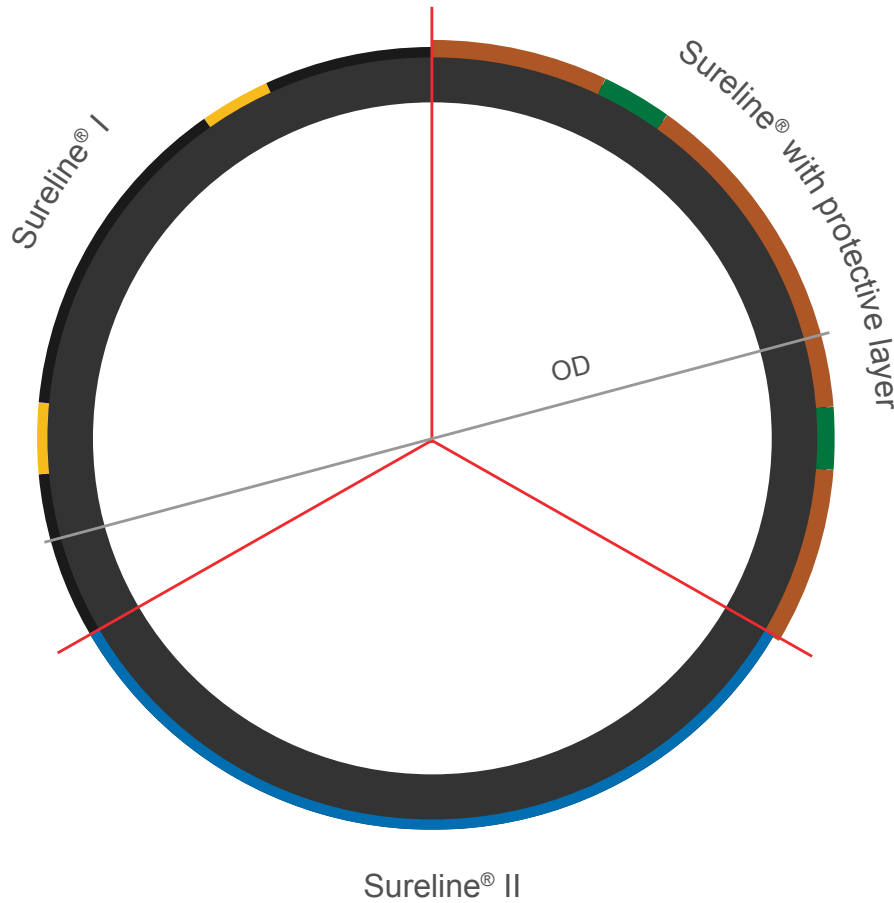
To ensure cost efficiency and fast installation, alternative installation technologies are becoming increasingly important. For example, sandbed-free installation reduces costs by removing the need for sand on-site. Additionally, trenchless methods such as relining, horizontal directional drilling or burst lining make trenches redundant. These methods leave the environment entirely untouched and keep traffic flowing without interruption or expensive surface restoration.

In most cases, alternative installation technologies can strain the outer surfaces of the structure's pipes, and scratches and point loads are virtually unavoidable. To ensure a safe, reliable operation, you should use Sureline® pipes, which come standard or with an additional protective PP layer that can handle the most demanding applications.

#### Advantages:

- Light and flexible (earthquake-proof)
- Easy installation
- Excellent joining technology
- Weldable (no ingrowths and leak proof)
- Outstanding abrasion properties
- Excellent chemical resistance
- No deposits and good flow characteristics
- Durability of more than 100 years
- Excellent overall economic efficiency





<p><b>Sureline® I</b></p> <p>PE 100-RC pipe with colored stripes</p>
<p><b>Sureline® II</b></p> <p>PE 100-RC pipe with integrated signal layer</p>
<p><b>Sureline® with protective layer</b></p> <p>PE 100-RC pipe with additional protective layer made of PP</p>

### Application Areas

Sureline® pipes are suitable for alternative installation techniques, including:

- Sandbed-free installation
  - OD <63 millimeters suitable for grain size up to 22 meters
  - OD ≥63 millimeters suitable for grain size up to 100 millimeters
- Ploughing
- Milling
- Horizontal directional drilling (HDD)\*\*
- Burst lining\*
- Relining\*\*

\*For burst lining, it is recommended to use Sureline® pipes with an additional protective layer.

\*\*Depending on the condition of the soil and the old pipe, Sureline® with protective layer can be beneficial for horizontal directional drilling as well as relining.



Figure 3: Sureline® Installation

## Maximum Safety for Trenchless Installations

### Supply Program

Our Sureline® I products can be produced in sizes ranging from OD 32 millimeters to OD 2,200 millimeters and are identified by their colored axial stripes. Sureline II products have an integrated signal layer that ranges from 75 millimeters to 400 millimeters.

Sureline® products ranging from OD 90 millimeters to OD 400 millimeters can also be equipped with an additional protective PP layer, which is identifiable by its green stripes.

OD [mm]	Sureline® I	Sureline® II	Sureline® with Protective Layer
≤63	√		
75		√	
90-400		√	√
≥450	√		

All dimensions are available in SDR 11 and 17



### Color Schemes

Depending on the application, the signal layer, stripes and protective layer will all be different colors (see the diagram below). Sureline® pipes for sewage systems are available with a light-colored inner layer to allow for easier camera inspection, upon request.

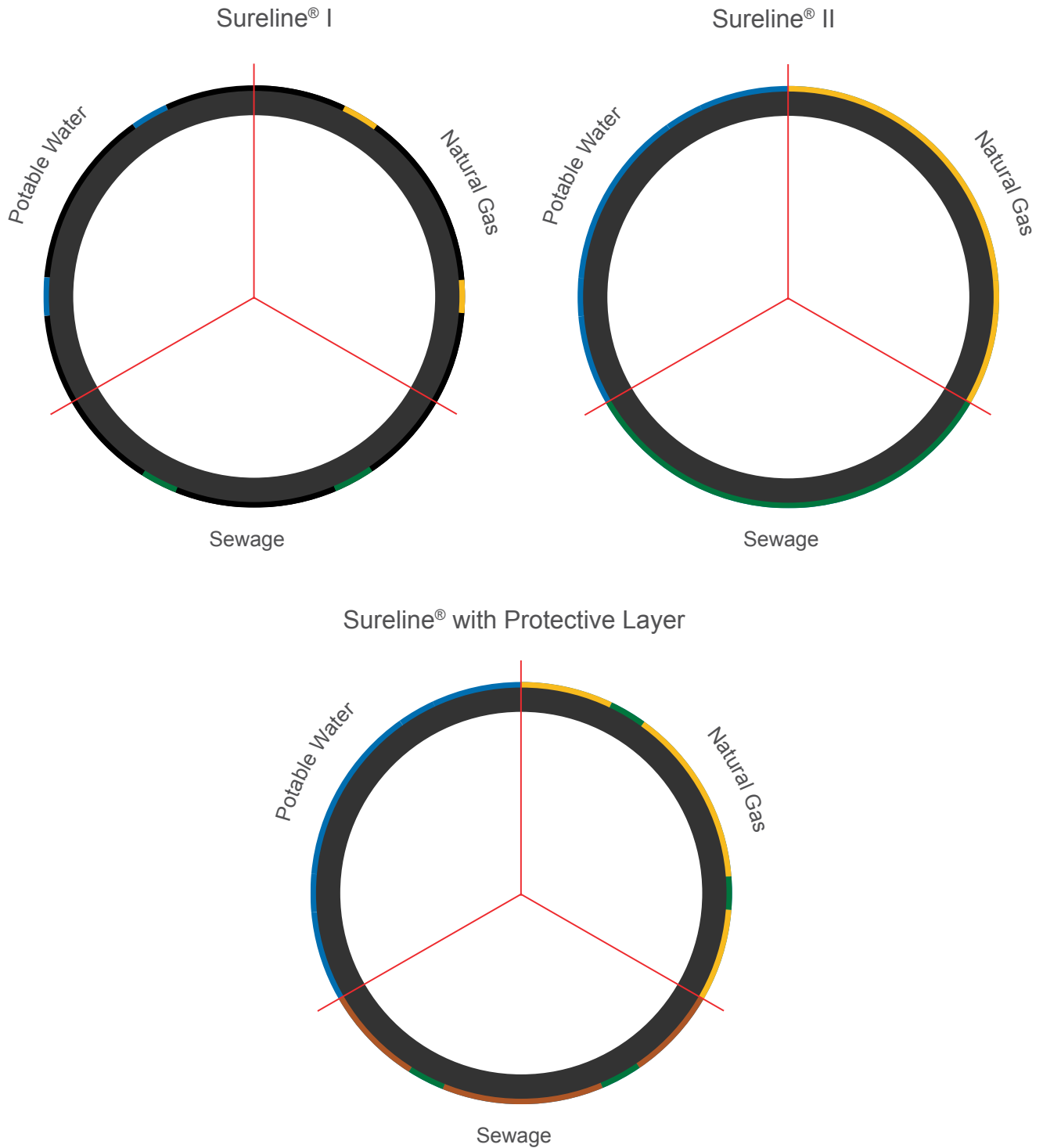






Figure 4: Joining Technology

## Joining Technology

We use two methods to connect Sureline® pipes: heating element butt fusion and electro-fusion welding, which is performed according to DVS codes. These pipes are compatible with pipes and fittings made of standard PE 100 or PE 80 material. It is important to note that the colored signal layer found in Sureline® II products is inseparable and must not be removed during the welding process. However, it is essential to remove the PP layer from Sureline pipes prior to welding.

## E-Couplers [PE 100-RC]

In addition to the existing electro-fusion program, we also offer injection molded e-couplers made of PE 100-RC. Ideal for joining high-quality Sureline® pipes, this product offers stronger durability and significant advantages thanks to its outstanding resistance to slow-crack growth, including:

- Applicable for horizontal directional drilling
- Insensitivity to point loads
- Suitable for sandbed-free installations





## Highest Quality

The PAS 1075 and ÖVGW PW 405/1

The first standard for PE 100-RC was the PAS 1075 (Public Available Specification, published by DIN) titled “Pipes made of polyethylene for alternative installation technologies.” The ÖVGW PW 405/1 is considered suitable for sandbed-free and trenchless installation. Most importantly, it ensures a high resistance to slow crack growth: > 8,700h in the “Full Notch Creep Test” (FNCT); tested at 80 °C and 4 N/mm<sup>2</sup> with an aqueous solution of 2 % Arkopal N-100.

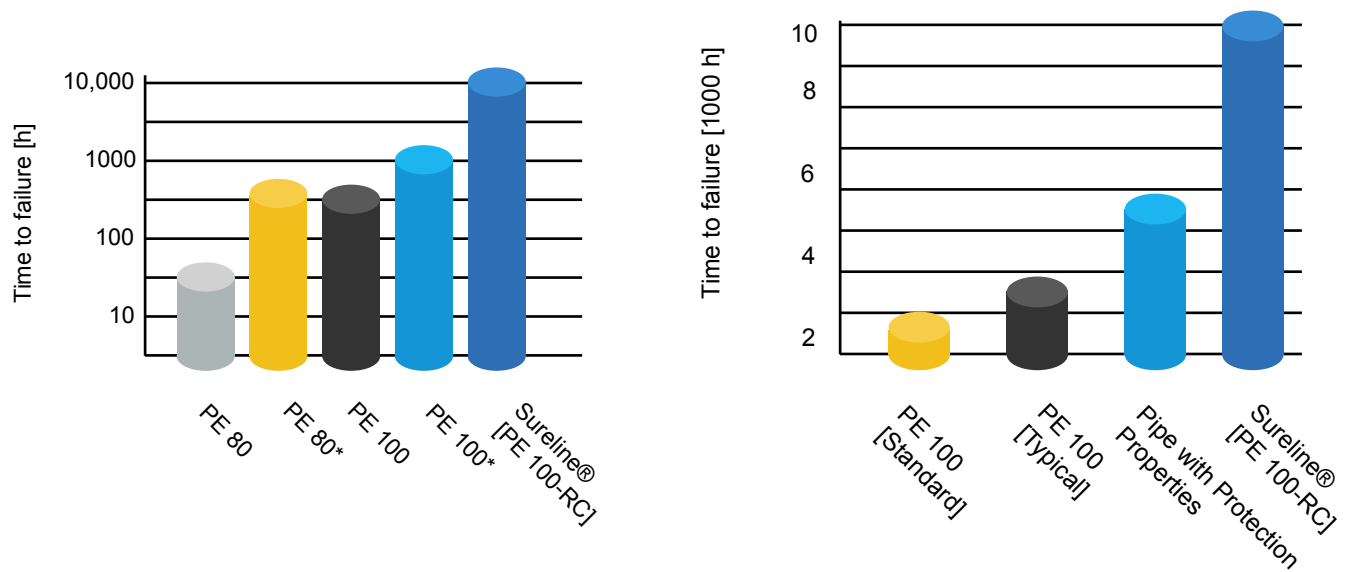


Figure 5: Sureline® Pipe







Argu America Sureline® pipes are produced according to international standards (EN 12201, EN 1555 and EN 13244). In the course of the internal quality control according to the quality management system ISO 9001:2008, the finished pipes are inspected with regard to:

- Dimensional accuracy
- Hydrostatic long-term strength
- Oxidation Induction Time (OIT)

We ensure high-quality products with the exclusive use of high-grade PE 100-RC material types and the most modern production machinery. Ongoing internal tests, as well as regular third party certifications, ensure high precision and performance for all of our products, and various approvals document their excellent quality.

### Discover more about AGRULINE®

Argu America's AGRULINE® product range includes a wide selection of premium PE 100 products for gas, water supplies and wastewater disposal. Besides our PE pipes and PE 100 fittings, our valves and special components offer a long service life and maintenance-free.



For more information on Sureline® and other  
Agru products, please reach out to us.



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