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**don't crack under pressure**

 **PET100+**  
**ASSOCIATION**

[www.pe100plus.net](http://www.pe100plus.net)



## The PE100+ Association – Creating trust in high quality PE pipes

Founded on February 24, 1999, the PE100+ Association is an industry organization of several polyethylene (PE) manufacturers whose objective is to guarantee consistent quality at the highest level in the production and use of PE100 ready-made compound pipe material. By monitoring the most critical properties of enhanced requirements, we are able to issue a "PE100+ Quality Materials" list on a regular basis.

The PE100+ Association has created tools for the promotion of PE pipe materials to educate end users and other decision makers:

- PE100+ Road Shows around the world
- Technical studies on current industry topics
- "PE Pipe Model" with questions and answers from all parts of the value chain
- "The PE100+ Quality Materials"- list
- PE100+ Newsletters

Visit [www.pe100plus.net](http://www.pe100plus.net) to learn more

## Plastic Pipes - for the environment and our well-being

The supply of clean water and energy are crucial for humanity. Millions of people throughout the world suffer from drinking water shortages, and the global population keeps growing. The highest quality piping material is critical for ensuring the safe transport of drinking water, natural gas and industrial fluids.

### PE Pipe - an excellent choice

High density polyethylene (HDPE) was introduced in the late 50s and has undergone tremendous development to reach the world-wide position it enjoys today. The outstanding quality of PE pipes is documented by international standardization bodies. Compared to traditional materials, PE pipe installations are the most competitive due to the combination of the following key advantages:

- Ease of handling because of flexibility and light weight
- Leak-tight installation due to excellent fusion-welding possibilities
- Long life with low operational costs
- Capability for relining existing pipelines
- Possibility for on-site extrusion, alternative installations
- Chemical resistance

## Enhanced material requirements of the PE100+ Association

The PE100+ Association ensures the very highest, continuous quality of PE100 products by regularly monitoring three fundamental properties listed in the table below.

Any manufacturer whose materials comply with the enhanced requirements of the PE100+ Association (see table), and who is able to produce consistent compound quality according to ISO 9000 standards is welcomed to the Association.

Property	Test Method	CEN/ISO Standard Requirements	PE100+ Association
Creep rupture strength	Pressure test at 20°C /12.4 MPa	≥ 100 h	≥ 200 h
Stress crack resistance	Pipe notch test at 80°C /9.2 bar	≥ 500 h	≥ 500 h
Resistance to RCP*	S4 Test at 0°C	$P_c \geq \frac{MOP}{2.4} - \frac{13}{18}$	≥ 10 bar

\*Rapid Crack Propagation

All tests are performed on 110mm - SDR 11 pipe.

## The PE100+ Quality Materials

On behalf of the PE100+ Association, Kiwa Gastec Certification BV, an independent testing authority in the Netherlands, every seven months issues a list of "PE100+ Quality Materials" every seven months, which includes only the products that meet the testing requirements of the PE100+ Association (see table).

The latest "PE100+ Quality Materials"- list is available on [www.pe100plus.net](http://www.pe100plus.net), and is also sent to more than 1000 decision makers in our regular newsletters.

## The Members

As PE100+ Association is continuously expanding, please visit [www.pe100plus.net](http://www.pe100plus.net) to see who are the member companies.

Visit the "PE Pipe Model" at

[www.pe100plus.net](http://www.pe100plus.net) and explore the questions and answers on the following topics:

Design

Materials

Construction

Operation

Maintenance

Environment

PE Pipe Model  
Guidance for PE Pressure  
Pipe Systems

## The PE100+ Association Eye-Witnesses



**Robin Bresser**  
President of the  
PE100+ Association

"The PE 100+ Association is an industry association that welcomes all PE100 pipe material producers, who fulfill the strict quality requirements of the association.

The Association promotes, in close co-operation with other organizations, the usage of all plastic pipes, for example by

educating and training decision makers, designers and installers. The PE100+ Association also responds and takes a leading role in common technical industry issues. The industry appreciates the broad technical and promotion work of the PE100+ Association which aims to create trust in high quality PE pipes – globally."



**Mike Shepherd**  
Thames Water plc

"High performance polyethylene is now, almost exclusively, the material of choice in the UK water industry for distribution size (90 mm to 315 mm) pipe systems and is increasingly being used for larger diameter trunk mains. As an end user, it is of utmost importance that these installations provide long and

maintenance free service lives.

The work of the PE100+ Association, by setting the standards for high quality materials and constantly working to improve best practice in manufacture, design and installation of PE pipe systems, provides confidence that these end user requirements will be met."



**Dr. Elmar Loeckenhoff**  
Kunststoffrohrverband - KRV

"Kunststoffrohrverband e.V. (KRV), an association of the plastics pipe industry, is a speaking partner for all applications of the German plastic pipes industries. The target of the KRV and its members is to offer high quality and reliable products.

Nowadays high quality pipes made of PE100 are used in many different application areas.

Thanks to the active education work of the PE100+ Association many pipe users and decision makers are today well informed on the benefits of PE100 material. The highest quality PE100 materials end up in both KRV and PE100+ Quality Materials lists. These materials exceed the requirements of the standard regulations."



**Anna Wróblewska**  
Wavin

"For Wavin company the highest quality of products offered to the customers is a matter of greatest importance. The necessary condition for manufacturing the high-quality pipes is the high-quality raw material. For many years Wavin has produced PE100 pipes by using raw materials placed on "The

PE100+ Quality Materials"- list. The quality of raw material is continuously controlled by independent research institutes and by Wavin quality control systems. Thanks to buying our products customers receive certainty that Wavin pipes' quality is higher than required standards. The results from our laboratory tests and the opinion of the end-users (waterworks and gasworks) confirm this."