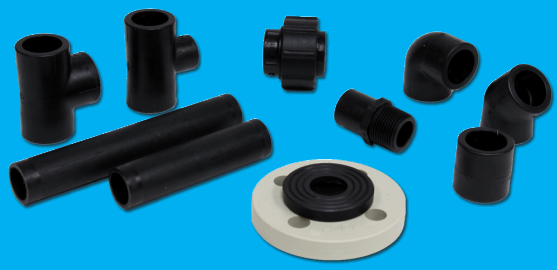
ASAHI/AMERICA

# Chem Proline®

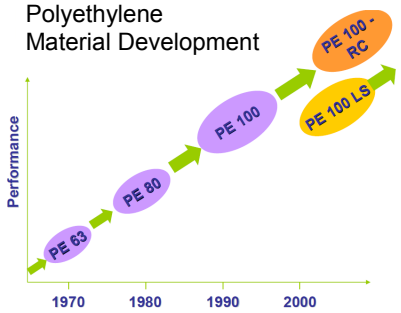
## PE 100-RC piping system

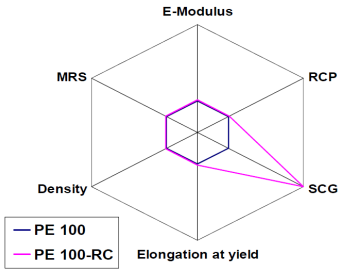
- Revolutionizing PE chemical compatibility
- Fused system eliminates cement and threads
- Save time by installing directly in rough trenches
- Resistance to crack propagation



## History

The next generation of polyethylene resin supplied in a patented piping system, Chem Proline®, for chemical service.




Slow crack growth testing is used to indicate useful life of certain chemicals in piping systems.

*Asahi/America's Chem Proline® PE 100-RC resin shows no reduction in installed quality with high concentrations of sodium hypochlorite.*

## Specifications

| | |
|---|---|
| **Welding** | Socket 1/2"-4" (20mm-110mm)<br>Butt 1/2"-12" (20mm-315mm)<br>Electro-fusion 1/2"-12" (20mm-315mm) |
| **Pressure** | 150 psi |
| **Product Range** | Pipe<br>Standard Fittings<br>Specialty Fittings<br>Valves<br>Semi-finished sheet/round bars |

## No More Joint Failures


## Chemical Resistance - Resistance to Slow Crack Growth and Stress Cracking

To enable the use of PE 100 materials in new application areas, research by raw material suppliers has focused in the past few years on a material property that is generally known as "resistance to slow crack growth" or "stress crack resistance". By means of process optimization in raw material production and special copolymerization methods, the raw material suppliers have developed PE 100 materials with outstanding stress crack resistance. These types of materials are known as "PE 100-RC".

PE 100 and PE 100-RC materials have basically identical properties, the main technical advantage of PE 100-RC is the significantly higher resistance to slow crack growth. This is expressed by the requirements for the full notch creep test, which is >8760 hours for PE 100-RC in comparison to 300 hours of regular PE 100 material.

Chem Proline® PE 100-RC Piping System by Asahi/America

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Rev. Tech2

ASAHI/AMERICA

# Chem Proline® PE 100-RC Piping System

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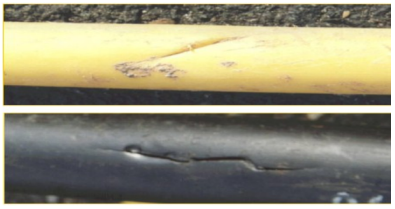
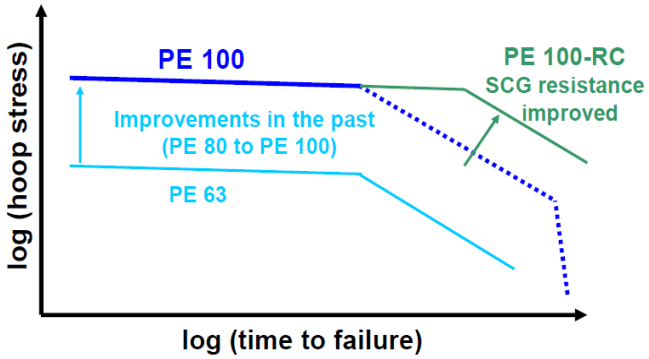
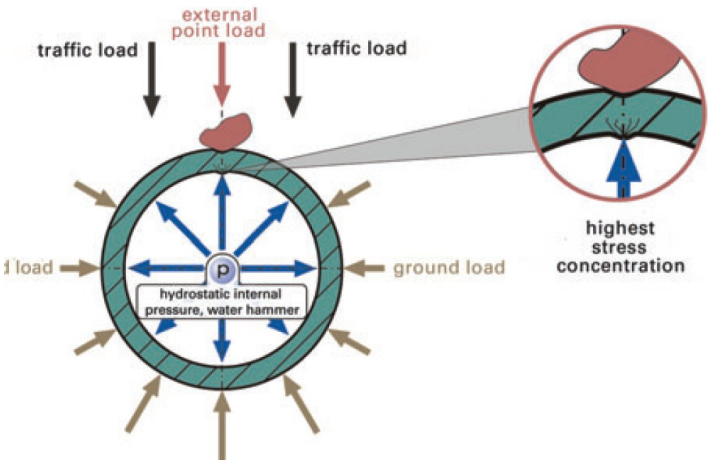


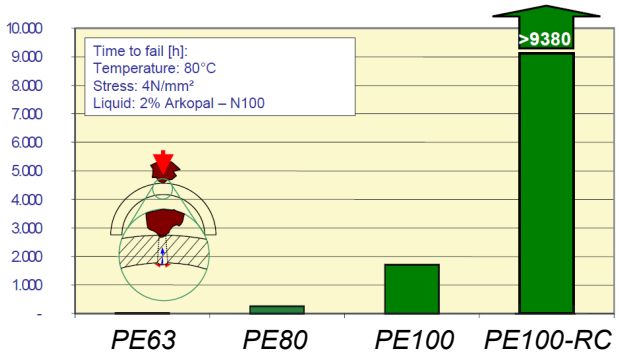
Install Chem Proline® PE100-RC right in rough dug trenches. No sand and pebble grading is required due to extreme resistance to point loads. Reach remote locations with lightweight PE100-RC.



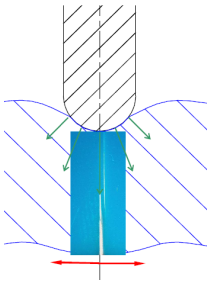

*Generational improvements in polyethylene*
*SCG: Slow crack growth*




## Puncture Test Results (by Hessel, Germany)



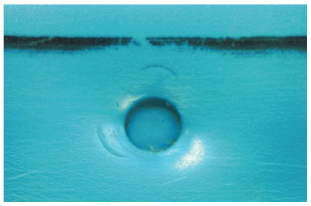

## Puncture Simulation Test



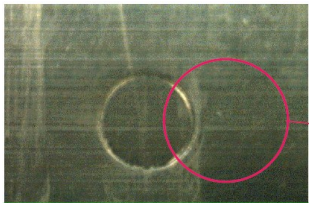
10mm stainless steel stamp is put to the outside of the PE piping. The piping pressure is set to 100+ psi. The stamp is pushed into the wall until it deforms 10 percent

Results below show PE 100-RC (right) is largely unchanged when compared to competitor PE materials (left).

***PE 100*** ***PE 100-RC***



*Outside puncture*



*Outside PE 100-RC*

*Internal tear*

*Internal PE 100-RC*

## Installation Instructions

Chem Proline® can be installed using socket or butt fusion. For installation with socket fusion, use DVS type B heating inserts and peel the end of the pipe to remove oxidation on the surface.

Butt and socket fusion parameters are identical to PE.

Pressure test to 1.1 times the operating pressure.

Complete weld training is available through your local authorized distributor and Asahi/America.

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