



# PERLAST® ICE°

The ultimate perfluoroelastomers for sealing applications where chemical resistance and extreme low temperature performance are critical.



Product Overview

[www.prepol.com](http://www.prepol.com)

# Perlast® ICE from PPE

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## What is Perlast® ICE?

Perlast® ICE is a range of perfluoroelastomers (FFKM) developed to meet the needs of demanding low temperature applications. Perlast® ICE offers superior thermal and chemical resistance associated with an FFKM in temperatures as low as -46°C (-51°F) or lower, depending on specific circumstances and environmental conditions.

Perlast® ICE materials have been carefully formulated to perform under extreme conditions by controlling the molecular architecture of the polymer. Alternative techniques attempt to modify performance by simply using additives and mixing, the exceptional performance of Perlast® ICE is achieved by structural changes to the polymer itself. This produces a material which not only performs at very low temperatures but, due to its low permeability, is also resistant to a wide range of chemical environments and therefore less prone to swelling.

## Why Perlast® ICE from PPE?

Perlast® ICE delivers a unique combination of excellent chemical resistance, mechanical properties and low temperature performance. This opens up new design possibilities for engineers looking to develop sealing solutions for equipment which needs to operate or be stored at extremely low temperatures. Beyond the material itself, working with PPE also adds value in a number of ways at all stages in the design process and for the on-going procurement.

- Design advice to optimize the seal design for the intended operating conditions
- Unrivalled rapid manufacturing lead times
- Global sales and manufacturing support coverage
- Expert technical support both before and after sale

**PERLAST® ICE**



## Why use Perlast® ICE?

- Excellent low temperature sealing capability
- Tested to NORSOK M710, TOTAL and NACE rapid gas decompression standards
- Third party certifications to NORSOK M710 and ISO 104323
- (API 6A) sour gas standard (high concentration H<sub>2</sub>S data available)
- Exceptional chemical resistance to methanol, steam, oils, acids and amines
- High temperature capability to 250°C (482°F)
- Excellent mechanical properties provide outstanding reliability
- Low compression set results in extended maintenance intervals
- Low permeability for improved operational performance



## Perlast® ICE products

Perlast® ICE FFKM elastomers can be molded into a wide range of shapes, profiles and sizes to suit any sealing application.

Typically, Perlast® ICE elastomers are available as O-rings, X-rings, T-seals, L-seals, lip seals, spring seals, wiper seals and many more profiles, including custom designed components and metal bonded parts.



## Typical Applications

Industries and applications where Perlast® ICE can provide critical sealing solutions include;

### Oil and Gas

- Subsea equipment
- Completion tools
- Drilling tools
- Drilling sensors
- Pipe connections
- Pumps, valves and compressors
- Production tools

### Chemical Processing

- Pumps and valves
- Mechanical seals
- Downstream refinery & Petrochemical equipment
- Cryogenic equipment
- Gas storage and transportation



## For more information

For more information on extreme low temperature and chemical resistant elastomers, refer to PPE brochures “Explosive Decompression Resistant Elastomers” and “Sour Gas Resistant Elastomers.” Brochures, test reports, certificates and material datasheets are available to download from the PPE website: [www.prepol.com/ice](http://www.prepol.com/ice)



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**PERLAST®**

The ultimate perfluoroelastomers for sealing applications where chemical resistance and high temperature performance are critical

**ENDURA®**

The ultimate range of elastomers for sealing applications in the world's most aggressive high pressure applications

Local PPE sales agent:

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