

# POWER<sup>®</sup>seal Cryo

Product name:	POWER <sup>®</sup> seal Cryo	Material data sheet No.:	D – 0203-0-EN	Date:	16. 05. 2022
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**Extreme low temperatures make most O Rings brittle which in turn leads to failure.**

## POWER<sup>®</sup>seal Cryo FEP / PFA Encapsulated Products for Cryogenic Applications

Seals Cryo-Ring™ is the perfect low-cost O-ring sealing solution where low temperature application demands are required. Liquid Oxygen or Hydrogen are ideal applications for a Cryo-Ring™ due to its lower temperature operating limit of -250°C (-418°F) compared to an encapsulated Silicone core limited to -60 °C (-75 °F).

With a 302 Stainless Steel spiral wound spring, encapsulated with either an FEP or PFA, a Cryo-Ring™ are used within a wide variety of industries such as transportation, food, pharmaceutical and chemical.

### Why Choose POWER<sup>®</sup>seal Cryo FEP / PFA Encapsulated Products?

- Widest temperature encapsulated sealing, O'-ring
- No cold flow problems due to the Stainless Steel elastomer core, unlike solid PTFE ring
- Virtually any cross-section and diameter size or shape of seals can be produced to meet your application
- Full traceability through production and multi-level automated inspection to ensure high product quality and reliability
- Guaranteed stock of materials for all BS ISO 3601-1/AS 568 sizes, with short lead times

#### Material Options

Encapsulation: FEP / PFA

Inner core: 302 Stainless Steel spring

#### Temperature Range

→ FEP = -250°C to +205°C (-418°F to +400°F)

→ PFA = -250°C to +260°C (-418°F to +500°F)

### Venting

For applications where pressure demands exceed 100 bar, ventilation holes are to be placed within the encapsulation to prevent encapsulation rupture.



### Sizes and Tolerances

Core materials are stocked in the below cross section sizes. Other sizes are available upon request.

Cross section	Cross section tolerance
1.78	-0.08 / +0.12
2.62	-0.08 / +0.12
3.53	-0.08 / +0.15
5.33	-0.13 / +0.20
6.99	-0.15 / +0.23
8.00	-0.16 / +0.24

The below values may not be available across all cross section sizes.

Internal diameter	Internal diameter tolerance -/+
12.71 - 25.40	0.25
25.41 - 38.10	0.30
38.11 - 50.80	0.45
50.81 - 63.50	0.55
63.51 - 88.90	0.61
88.91 - 101.60	0.71
101.61 - 127.00	0.79
127.01 - 152.40	0.94
152.41 - 177.80	1.02
177.81 and upwards	0.50%

Dimensions in mm



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All technical data and recommendations given are based on our experiences. However, we do not undertake any liability whatsoever. All data and values have to be checked by the user, since the effectiveness of a seal can only be judged correctly by evaluating all data and parameters directly on site. The stated parameters are approximate and may be mutually influenced if occurring together. Please contact us in case of difficult or special applications.

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