

# M SEALS ZC100

White FDA compliant Perfluoroelastomer (FFKM)

**M SEALS**  
- Part of Diploma PLC

## MATERIAL DATA SHEET (Version 6.0 – 05.2022)



FDA Compliant



ADI free

### Description

ZC100 is a white 77 IRHD hardness FDA compliant Perfluoroelastomer (FFKM) material.

This FDA compliant Perfluoroelastomer (FFKM) compound has been developed to meet severe service requirements where application conditions may involve high temperature use and/or sealing of aggressive media. The compound offers similar chemical resistance to that of PTFE while providing elastomeric properties comparable to more standard Fluorocarbon rubbers.

### Physical Properties

Property	Test method	Unit	Typical value
Colour			White
Density	ISO 2781	g/cm <sup>3</sup>	2.38
Hardness	ISO 48	IRHD	77 (+/-5)
Tensile Strength	ISO 37	MPa	11.6
100% Modulus	ISO 37	MPa	6.4
Elongation at break	ISO 37	%	178
Compression set (24 Hours in air @ 204°C)	ISO 815	%	17.9
Minimum service temperature		°C	-15
Maximum service temperature		°C	+260

#### Global migration results of FDA extraction on ZC100 material samples (mg/inch<sup>2</sup>)

FDA test method	Reflux test conditions	Mean over 3 samples	Limit*	Conclusion
CFR 177.2600 e&f	Deionised water, 7 hours	<0.01	20	PASS
CFR 177.2600 e&f	Deionised water, 2 hours	<0.01	1	PASS
CFR 177.2600 e&f	n-hexane, 7 hours	0.03	175	PASS
CFR 177.2600 e&f	n-hexane, 2 hours	0.02	4	PASS

\* Maximum acceptable global migration according to FDA CFR 177.1600

The above material has been formulated and tested to comply with the requirements of FDA CFR 177.2600 e&f for repeat use contact with aqueous and fatty foodstuffs. The material also complies with the requirements of EU directive REGULATION (EC) No 1935/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of October 27th 2004.

**Exceptions:** Article 3 (1) (C) bring about a deterioration in the organoleptic characteristics thereof. Since the final conditions of use are outside of our control, we cannot test for this characteristic.

### Main Characteristics

- White in colour to distinguish from standard black compound
- Ingredients are CFR 177.2600 (e&f) FDA Compliant
- Increased chemical resistance compared to standard FPM/FKM
- Excellent temperature capability
- ADI, Bisphenol A & Phthalate free

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