

# MATERIAL TEST DATA

TRP COMPOUND REFERENCE  
N°: F227 (page 1 of 2)

Polymer Type: Norsok M-710 Certified low  
Temperature Fluorocarbon Rubber (FKM)



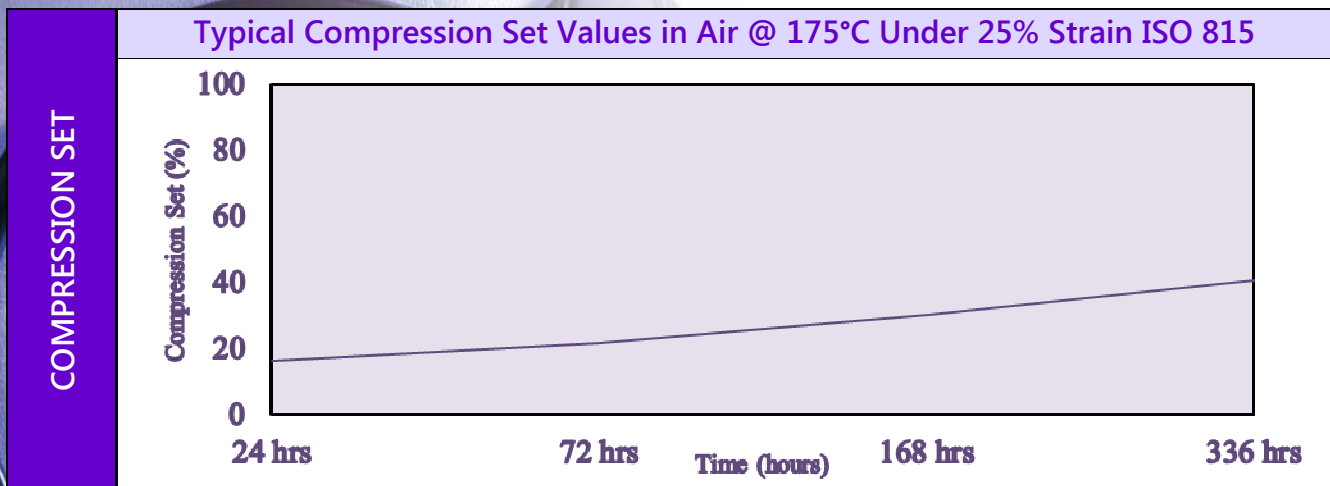
## Description

This low temperature fluorocarbon rubber compound has excellent rapid gas decompression resistance (RGD) and is certified to the NORSOK M-710 Rev. 2 standard. It has outstanding physical properties for a compound with such a high hardness in combination with improved low

temperature performance. It is suitable for sealing against a wide range of oils, fuels and chlorinated solvent.

**Service Temperature  $-40^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$ ) to  $200^{\circ}\text{C}$  ( $390^{\circ}\text{F}$ ).**

TYPICAL PHYSICAL PROPERTIES	Property	Typical Values	Test Standard
	Colour	Black	
	Hardness ( $^{\circ}\text{IRHD}$ )	90	ISO 48
	Tensile Strength (MPa)	19.5	ISO 37
	Modulus @ 100% (MPa)	9.66	ISO 37
	Elongation @ Break (%)	185	ISO 37
	Tear Strength (N/mm)	22.8	ISO 34
	Specific Gravity ( $\text{g}/\text{cm}^3$ )	1.82	ISO 2781
	Temperature Retraction TR10 ( $^{\circ}\text{C}$ )	-29	ISO 2921



NORSOK	NORSOK M710 (Rev. 2, October 2001) in respect of rapid gas decompression resistance in 10% Carbon Dioxide at 150 bar and $100^{\circ}\text{C}$		
	Compound	Summary Rating (Average of three)	Result
	F227	1000	Pass

OIL & GAS INDUSTRY / RGD RESISTANT

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Polymer Type: Norsok M-710 Certified Low Temperature Fluorocarbon Rubber (FKM)

OIL & GAS INDUSTRY / RGD RESISTANT

AIR-AGEING	Property (after 168 hours @ 175°C)		Typical Values	Test Standard
	Hardness Change (°IRHD)		+2	ISO 188
	Tensile Change (%)		+1.02	ISO 188
	Elongation Change (%)		-4.86	ISO 188
	Property (after 336 hours @ 175°C)		Typical Values	Test Standard
	Hardness Change (°IRHD)		+1	ISO 188
	Tensile Change (%)		-0.01	ISO 188
Elongation Change (%)		-12.43	ISO 188	

ABSORPTION TEST	Property (after 168 hours @ 100°C)		Typical Values	Test Standard
	IRM 901 OIL			
	Volume Change (%)		+0.35	ISO 1817
	Hardness Change (°IRHD)		-2	
	IRM 903 OIL			
	Volume Change (%)		+0.78	ISO 1817
	Hardness Change (°IRHD)		-4	
	DISTILLED WATER			
	Volume Change (%)		+2.82	ISO 1817
	Hardness Change (°IRHD)		-6	

The properties given on this data sheet is derived from tests carried out by TRP Polymer Solutions Ltd. They should not be regarded as specifications, but only as typical properties of the material described. It is intended for use by persons having technical skills and understanding of the seal and gasket design. Since the conditions of use are outside our control, nor have we designed the product shape, we can make no warranties, express or implied and assume no liability in connection with any use of this information.

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