

VERMANITE®

AN ELASTOMER THAT PERFORMS IN EXTREME CONDITIONS

VERMANITE®

OPERATING TEMPERATURE RANGE: 1704/58

-10°C to 230°C (14°F to 446°F)

VERMANITE® is Rubberatkins' proprietary range of FFKM elastomers that have become a game-changer against the current material offerings within the industry.

The VERMANITE® brand of elastomers can be tailored to meet the most demanding environments; from ultra-low temp of -40°F to ultra-high temp of 650°F, including long term resistance to highly aggressive chemicals.

VERMANITE® can be formulated by Rubberatkins to exceed requirements and perform in some of the most challenge-driven, hostile places in the world.

VERMANITE® ULTRA

OPERATING TEMPERATURE RANGE: 1239/58

-10°C to 343°C (14°F to 650°F)

VERMANITE® ULTRA is Rubberatkins' ultimate high-temperature resistant FFKM material.

VERMANITE® LT

OPERATING TEMPERATURE RANGE: 1176/58

-30°C to 230°C (-22°F to 446°F)

VERMANITE® LT is Rubberatkins' low-temperature FFKM variant.



FEATURES

- Exceptional physical property retention
- Steam resistant and compatible with most oilfield fluid environments
- Excellent chemical resistance
- High sour gas resistance
- Excellent abrasion resistance
- Rapid gas decompression (RGD) resistant

BENEFITS

- Unrivalled sealing integrity
- Proven field history
- Increases life expectancy
- Minimises installation and intervention costs
- Reduces NPT

TYPICAL APPLICATIONS

- Steam injection and stimulation applications
- Geothermal
- EOR and SAGD
- Packer/bridge plug elements
- O-rings and seal stacks
- BOP and wellhead seals
- Surface pressure control seals
- Custom Parts

APPROVED UNDER:

ISO 23936-2 Annex B

NACE TM0187

NORSOK M710

API 6A



VERMANITE®

VERMANITE® – MATERIAL DATA

ELASTOMER	VERMANITE® 1704/58 (85 – 95 IRHD)		VERMANITE® ULTRA - 1239/58 (85 – 90 IRHD)		VERMANITE® LT - 1176/58 (85 – 95 IRHD)		
PROPERTY	CONDITIONS	TYPICAL VALUE	CONDITIONS	TYPICAL VALUE	CONDITIONS	TYPICAL VALUE	TEST STANDARD
Tensile strength (MPa)	Ambient	18	Ambient	15.2	Ambient	12.9	ISO 37
Elongation at break (%)	Ambient	123	Ambient	132	Ambient	127	ISO 37
100% modulus (MPa)	Ambient	16.1	Ambient	12.8	Ambient	10	ISO 37
Compression set (%)	168 hrs @ 200 °C	20	70 hrs @ 200 °C	18	22 hrs @ 200 °C	22	ISO 815
Hardness (IRHD)	Ambient	85 – 95	Ambient	85 – 90	Ambient	85 – 95	ISO 48
Tear strength (N/mm)	Ambient	27	Ambient	---	Ambient	---	ISO 48
Glass transition (°C)	---	1	---	-3	---	-33	ISO 22768

VERMANITE® – STEAM EXPOSURE, 650 °F, 2 MONTHS

PROPERTY	VERMANITE® ULTRA - 1239/58 (85 - 90 IRHD)
INITIAL RESULTS	
Tensile strength (MPa)	18.21
Elongation at break (%)	138
100% modulus (MPa)	14.6
Hardness (IRHD)	85
POST-EXPOSURE RESULTS	
Change in tensile strength (MPa)	-12
Change in elongation at break (%)	-5
Change in 100% modulus (MPa)	-11
Change in hardness (IRHD)	-5

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