



LeaderTHERM NXT

THE NEXT GENERATION IN EXTREME TEMPERATURE SEALING

Modified phlogopite with extremely low weight loss

the legacy in sealing technology

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INNOVATION BY
LEADER GASKET

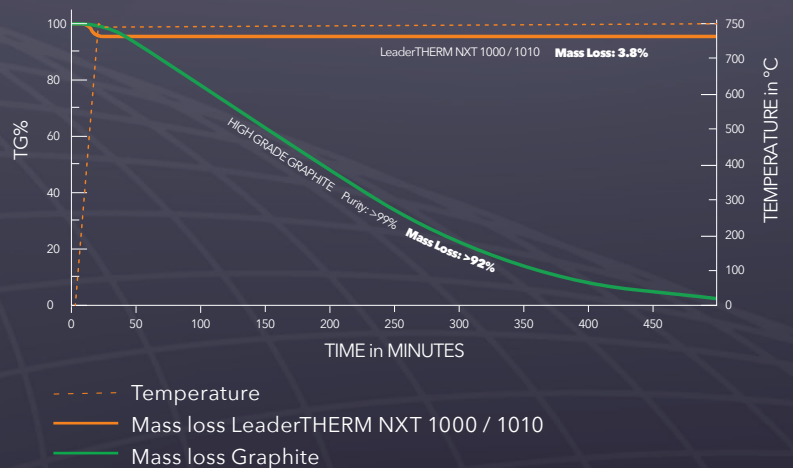
LeaderTHERM NXT consists of a family of modified phlogopite flake structured materials. Phlogopite, an aluminium silicate of mineral origin, has a lamellar and non fibrous structure, representing an excellent solution at high temperatures.

This material composition gives a low weight loss and stable material structure at extremely high temperatures.

Therefore **LeaderTHERM NXT** leads to an improved tightness (low emission), a broad chemical as well as oxidation resistance.

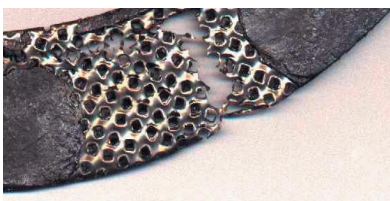
Comparison of Mass Loss / Temperature

- Behaviour at 750°C / 1382F
- LeaderTHERM NXT 1000 / 1010 versus Graphite



Phlogopite is an important and relatively common end-member composition of biotite. Phlogopite micas are found primarily in igneous rocks, although it is also common in contact metamorphic aureoles of intrusive igneous rocks with magnesian country rocks and in marble formed from impure dolomite.

LeaderTHERM NXT is the ideal alternative for graphite gaskets that are attacked by oxidation



▲ Example of graphite oxidation at high temperatures

- Extreme temperature flange gasket material
- Effective tightness even at higher temperatures (up to 1000°) and pressures
- Low weight loss at extreme conditions
- Oxidation resistance
- Non combustible
- Sustainable solution
- BAM approval

Applications

- Exhaust gas systems for turbo chargers
- Catalyst cracking systems
- High temperature gas boilers and equipment
- NOx containing applications
- Power generation

Industries

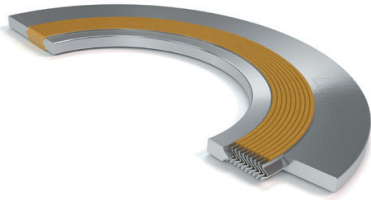
- Marine and land base machinery
- Automotive and OEM
- Refining and Petrochemical
- Chemical Processing
- Basic Industry, Steel, Pulp & Paper
- Incineration Processes

Sealing characteristics

- Outstanding chemical resistance
- Good leak rate; even at high temperature
- For fluctuating temperatures
- Non ageing

Chemical compatibility, pressure and temperature

- Broad chemical resistance
- Pressure up to ASME B16.5 class 2500lbs
- Temperature up to 1000 °C



LeaderTHERM NXT 1000

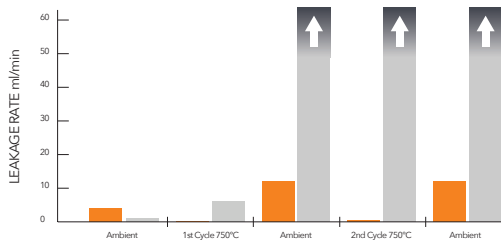
GAS TIGHT HIGH TEMPERATURE FILLER FOR SPIRAL WOUND GASKETS

LeaderTHERM NXT 1000 is filler for a spiral wound gaskets for critical HIGH temperature services. The gasket consists of specially treated phlogopite mica structure in combination with a profiled metal winding. The gasket can be supplied in with/or without inner and/or outer ring. To suit specific applications, it is possible to select the metal winding and inner/outer rings.

DELIVERY OPTIONS

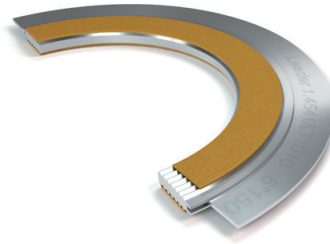
- Type
 - S: sealing element only
 - SI: sealing element and inner ring
 - SR: sealing element and outer ring
 - SRI: sealing element and inner and outer ring
- According to ASME B16.20 and to EN1514-2
- Special dimensions according customer drawing (non-standard flanges)

THERMAL CYCLING LEAKAGE TEST (SWG)



LeaderTHERM NXT 1000 4 <0,2 12 0,5 12
 Vermiculite <1 6 >50 >50 >50

Temperature: Between ambient and 750°C
 Flange: DN40 PN40
 Media: Nitrogen
 Test Pressure: 10 Bar
 Gasket seating stress: 100 MPa



LeaderTHERM NXT 1010

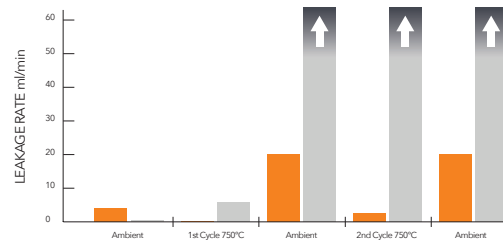
GAS TIGHT HIGH TEMPERATURE FACING FOR KAMMPROFILE GASKETS

Gasket facing for critical HIGH temperature services which require long life time and low leakage. The gasket consists of specially treated phlogopite mica structured layer material in combination with a grooved Kammprofile carrier ring. The gasket can be supplied with or without outer ring. To suit specific applications it is possible to select special materials.

DELIVERY OPTIONS

- Type as end product
 - LeaderKAM/LeaderTHERM layer
 - KV: without outer guide ring
 - KB: convex without outer guide ring
 - KV9(S): with integral outer ring
 - KB9(S): convex with integral outer ring
 - KV9L: with loose outer ring
 - KB9L: convex with loose outer ring
- According to ASME B16.20 and to EN1514-6
- Special dimensions according customer drawing (non-standard flanges)

THERMAL CYCLING LEAKAGE TEST (KAM)



LeaderTHERM NXT 1010 4 0,2 20 2,5 20
 Vermiculite 0,2 6 >50 >50 >50

Temperature: Between ambient and 750°C
 Flange: DN40 PN40
 Media: Nitrogen
 Test Pressure: 10 Bar
 Gasket seating stress: 80 MPa

TECHNICAL DATA

	Norm	LeaderTHERM NXT 1000	LeaderTHERM NXT 1010	Unit
Minimal initial stress		70	20	MPa
Maximum initial stress		300	300	MPa
Minimum temperature				°C
Maximum temperature		1000*	1000*	°C
Maximum pressure**		300**	300**	bar
Density filler		1,2	1,2	g/cm3
Leachable chloride content		10	10	ppm
Leachable fluorine content		10	10	ppm
M-Factor		3	3,5	
Y-Factor		10000	3000	psi

* for filler / ** depends on flange construction



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