LeaderTherm NXT1010

High-Temperature Facing Material for Kammprofile Gaskets

DESCRIPTION

LeaderTherm NXT1010 is a premium facing material engineered specifically for Kammprofile (grooved metal) gaskets used in high-temperature and high-pressure sealing applications. Formulated with a proprietary phlogopite-based material, NXT1010 offers exceptional thermal stability, excellent oxidation resistance, and consistent compressibility — ensuring a reliable sealing layer between the serrated metal core and the flange surface.

Designed to withstand extreme thermal cycling and harsh process media, NXT1010 maintains integrity where graphite, PTFE, and fiber-based facings may degrade, making it an ideal material for critical industrial applications requiring long service life and premium sealing performance.

APPLICATION

LeaderTherm NXT1010 is used as the facing material on Kammprofile gaskets across a wide range of demanding service environments, including:

- Heat Exchangers with elevated temperature cycling
- Refining and Petrochemical Process Units (e.g., heaters, reformers, FCC components)
- Chemical Processing Plants requiring long-term stability in corrosive or oxidizing environments
- High-Temperature Flanged Joints where graphite oxidation is a concern
- Industrial Furnaces & High-Heat Equipment
- Turbocharger and Exhaust Systems (NOx applications)
- Power Generation (steam systems, turbines, high-pressure lines)

Suitable for applications where stability in oxidizing atmospheres and resistance to thermal shock are essential.

CHEMICAL COMPATIBILITY

The phlogopite-based formulation of NXT1010 provides broad compatibility across common industrial media.

EXCELLENT RESISTANCE TO:

- Hydrocarbons, oils, fuels
- Steam and superheated steam
- Many inorganic acids and bases (excluding strong oxidizers at low temperature)
- Solvents, glycols, and typical process fluids
- Oxidizing atmospheres at high temperature

NOT RECOMMENDED FOR:

- Strong oxidizing acids at any temperature. Verify corrosion resistance with metal core
- Molten alkali metals of any kind

This chemistry ensures that the facing layer performs reliably even under prolonged exposure to heat and challenging chemical environments.

AVAILABLE OPTIONS

LeaderTherm NXT1010 is specifically designed for use with Kammprofile gasket manufacturing in standard and custom sizes. LeaderTherm NXT1010 is compatible and can be supplied with all major metal core materials (e.g., SS316L, SS304, Duplex, Alloy20, Inconel, Monel).

SEALING CHARACTERISTICS

When applied as the facing on a Kammprofile core, LeaderTherm NXT1010 delivers superior sealing behavior under demanding conditions.

Key Performance Attributes:

- High-Temperature Capability beyond the limits of many conventional facing materials
- Excellent Oxidation Resistance, supporting extended service life
- Controlled Compressibility, for uniform flange contact and reduced risk of surface damage
- Outstanding Recovery to maintain tightness during thermal cycling
- Stable Mechanical Properties even under extreme loads
- Exceptional Chemical Resistance, enabling use across broad refinery, chemical, and power-generation markets

These attributes make NXT1010 a highly reliable choice for fabricators and end users seeking a high-performance, long-lasting facing material for Kammprofile gaskets.

LOCATION
850 Sens Road, La Porte, TX 77571

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TECHNICAL DATA	
Maximum Temperature	1832°F
Maximum Pressure	4351 psi
Minimum Initial Stress [DIN E 2505 part 2]	2900 psi
Maximum Initial Stress [DIN E 2505 part 2]	43500 psi
Density	1.2 g/cm³
Chloride / Fluoride	≤10 ppm
M-Value	3.5
Y-Value	2,500 psi

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