

novaform® SK

The industrial exhaust gasket for extremely tough mechanical conditions.



Material profile

High-quality aramid fibres and functional fillers are the basic materials used to manufacture novaform® SK, reinforced by a galvanised zigzag twill fabric (1.0314), homogeneously embedded in an NBR matrix.

This raw material blend gives novaform® SK following excellent material properties:

- extremely high tensile strength
- outstanding pressure resistance
- maximum temperature stability
- unique mechanical resistance and reliability
- stable long-term sealing properties, even under extreme conditions

Application areas

novaform® SK is the ideal choice for use in the exhaust section of diesel engines, for example in shipbuilding:

- for extreme thermal and mechanical conditions, particularly for hot exhaust gases, e.g. for exhaust systems, exhaust turbochargers, compressors
- can be combined very effectively with inner eyelet

Good for people and the environment

The Frenzelit gasket division has obtained certification that the company complies with the requirements of ISO 9001, ISO 14001 and ISO 50001.

This means complete transparency in all areas and therefore provides a high degree of security for the benefit of our employees, the environment and our customers.

If you have any application engineering questions, we will be delighted to answer them. Just contact:

gaskets@frenzelit.com

GASKETS

TECHNICAL TEXTILES

EXPANSION JOINTS

INSULATION

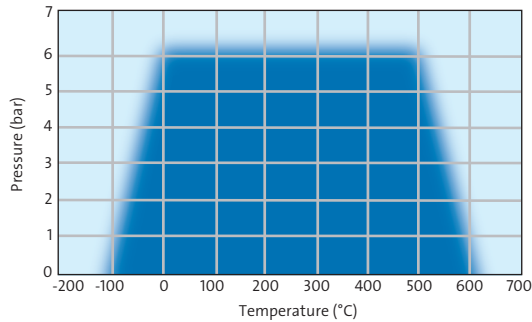
NEW MATERIALS


creating hightech solutions

Technical information about novaform® SK

Recommendation for hot exhaust fumes

Depending on pressure and temperature levels

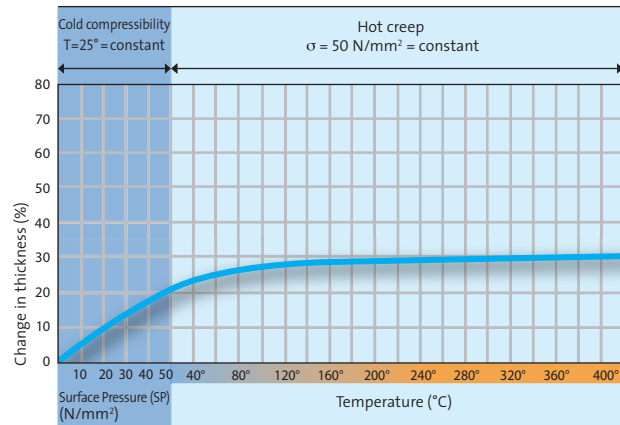


The temperature and pressure recommendations in the graphs apply to gaskets with a thickness of 2.0 mm and raised face flanges. Higher stresses are possible when thinner gaskets are used! The information provided must therefore be considered as estimates that are on the safe side rather than as specific operational limits.

Exact data for specific individual cases are available in the Frenzelit novaDISC programme or contact our application engineering specialists.

Temp-Test

at 50 MPa - sample thickness 2.0 mm



Explanatory notes about the temperature test (Temp-Test):

The purpose of the temperature test is to determine how the gasket deforms under certain conditions. It is a special Frenzelit development that represents what is effectively a "fingerprint" of major gasket properties.

The compression set of the gasket at room temperature is determined in the first part of the test. This curve indicates the adaptability of the gasket during installation.

In the second part of the test, the temperature is increased at a specified speed, while the surface pressure level reached in the first part is maintained consistently. I.e. the system is not allowed to "relax" as a result of gasket compression. This is overly critical – the strain on the gasket would be lower in a real sealing situation – but it unsparingly reveals the character of the gasket.

Material data

General data

| | |
|---------------------|--------------------------|
| Approvals and tests | GL |
| Colour | dark grey |
| Treatment | rolled-on graphite layer |

Physical properties

Gasket thickness 2.0 mm

| Physical properties | Standard | Unity | Value* |
|-----------------------------|--------------|----------------------|--------|
| Density | DIN 28 090-2 | [g/cm ³] | 1.90 |
| Residual stress 300 °C | DIN 52 913 | [N/mm ²] | 40 |
| Compressibility | ASTM F 36 J | [%] | 15 |
| Recovery | ASTM F 36 J | [%] | 33 |
| Tensile strength transverse | DIN 52 910 | [N/mm ²] | 22 |
| Fluid resistance | ASTM F 146 | | |
| ASTM IRM 903 | 5 h / 150 °C | | |
| Weight change | | [%] | 25 |
| Thickness increase | | [%] | 2 |
| ASTM Fuel B | 5 h / 23 °C | | |
| Weight change | | [%] | 20 |
| Thickness increase | | [%] | 2 |
| Coolant/Water (50:50) | 5 h / 100 °C | | |
| Weight change | | [%] | 30 |
| Thickness increase | | [%] | 3 |

*Mode (typical value)

Product data (tolerances acc. to DIN 28 091-1)

| | |
|------------------|--|
| Dimensions | Roll: width 1000 mm, length 10 m max. Sheet: 1000 x 1000 mm (as roll section) |
| Thicknesses [mm] | 0.8 / 1.0 / 1.2 / 1.5 / 2.0 / 3.0 |

Warranty disclaimer

In view of the variety of different installation and operation conditions and applications and processing engineering options, the information given in this prospectus can only provide approximate guidance and cannot be used as the basis for warranty claims.

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