C-4408W

With High Strength Steel Wire Reinforcement

Universal high-pressure gasket (C-super) for use in a wide range of industrial applications

Basis

Aramid fibres, bound with NBR.
Suitable for high stress due to wire reinforcement. Resistant to oils, water, steam, gases, fuels, alcohols, hydrocarbons, lubricants and refrigerants.

Compressibility ASTM F 36 J		8%
Recovery ASTM F 36 J	Min	50%
Stress relaxation @ 50 Mpa for 16 h/300°C acc. to DIN 52913		28 Mpa
Klinger cold/hot compression, 50 Mpa		
Thickness decrease at 23°C		10%
Thickness decrease at 300°C		22%
Tightness acc. to DIN 3535/6		2.5 ml/min
Soluble chloride content chlorides (sol.)		150 ppm
Thickness increase ASTM F 146		
Oil JRM 903: 5 h/150°C		5%
Fuel B: 5 h/23°C		5%
Density		1.9 g/cm³

Typical values for 2 mm thickness

Klinger cold/hot compression

With this test method developed by Klinger you can evaluate the cold/hot compression of a gasket in cold and hot condition.
Unlike the method acc. to DIN 52913 and BS 7531, the surface load is kept constant during the complete test so that the gasket is exposed to much tougher conditions.
The thickness decrease at an ambient temperature of 23°C and at heating up to 300°C is measured. The indicated thickness decrease at 300°C refers to the thickness obtained after loading at 23°C.

Dimensions of the standard sheets

Sheet Size: 2,000 mm x 1,500 mm
Thicknesses: 0.5 mm, 1.0 mm, 1.5 mm, 2.0 mm, 3.0 mm other thicknesses on request.
Tolerances: Thickness: ± 10%, Length ± 50 mm, Width: ± 50 mm

The many and varied demands made on gaskets

The successful operation of a gasket depends upon a multiplicity of factors.
Many who use static gaskets believe that the values quoted for maximum admissible temperature and maximum operating pressure are inherent properties or characteristics of gaskets and gasket materials. Unfortunately, this is not the case. The maximum temperatures and pressures at which gaskets may be used are influenced by a large number of factors.
Therefore a definite statement of these values for gasket material is not possible.

Why Provide pT Diagrams?

For the reasons given the pT diagram is not infallible: it serves as a rough guide for the end user who often has only the operating temperatures and pressures to go on.
Additional stresses such as greatly fluctuating load may significantly affect whether a gasket is suitable for the application. Resistance to media must be taken into account in every case.

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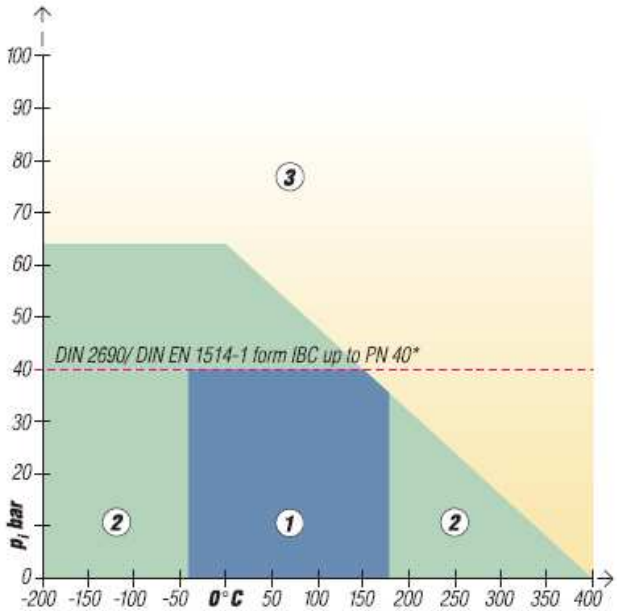
pT Diagram



* Gaskets according to DIN 2690 are only standardised up to PN 40

The Fields of Decision in the pT Diagram

① If your operating temperatures and pressures fall within this field, a technical examination is normally unnecessary.

② If your operating temperatures and pressures are within this field, a technical examination is recommended.

③ If your operating temperatures and pressures are within this “open" field a technical examination is always necessary.

Important points to be observed

The selection of gaskets requires expertise and know-how since ever greater reliability coupled with the lowest possible leakage rates are demanded of gasket materials.
The exacting demands made on the tightness of gasket materials (e.g. Tightness class L0.01) mean that with increasing internal pressure higher surface pressures must be applied to the gasket.
It must be shown that the flange joint will tolerate the demands made on it without being mechanically overloaded. Furthermore, the surface pressure applied to create the seal should never fall below the required minimum value since this will reduce the life of the gasket. Highly stressed, but not overstressed gaskets have a longer life than understressed gaskets.
If the gasket fitted will be subjected to non-static loading, or will suffer stress fluctuations during discontinuous operation, it is advisable to choose a gasket which is not prone to embrittlement with increasing temperature (e.g. graphite laminate or Topchem), especially for steam and/or water applications.
For discontinuous operations in water and/or steam applications, we recommend as a general guide a surface pressure of about 30 MPa. In such cases the gasket should be as thin as is practicable. For reasons of safety, we advise against the re-use of gaskets.

Rings and other finished gaskets

These gaskets are available in any size and corresponding sheet thicknesses, also flanged and PTFE enveloped.

Surfaces

The standard surface finish of the material is such that the surface has an extremely low adhesion.
On request, graphite facings and other surface finishes on one or both sides are also available.

Function and durability

The performance and life of KLINGER gaskets depend in large measure on proper storage and fitting, factors beyond the manufacturers control. We can, however, vouch for the excellent quality of our products. With this in mind, please also observe our installation instructions.

Subject to technical alterations - August 2003
C-4408W is a product of Klinger Limited

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