

Xtreme[®] plus



The new gasket material with
great sealing potential for very
high operating temperatures

System engineering made by

VICTOR REINZ[®]



Controlling temperature

Xtreme⁺ plus



Power over the elements

High operating temperatures, the taming of awesome power

Unlimited potential

... taming awesome power

In control

Controlling the awesome power of nature – an ancient dream of mankind, which has now been brought one step closer by VICTOR REINZ. But to ensure that any dealings with this awesome power do not become an incalculable risk, considerable innovative enthusiasm is required. And that's what VICTOR REINZ provides. The new gasket material Xtreme® plus gets to grips with high temperatures like no other.



Schematic diagram: Variation of the stainless steel inner bead

gases at extreme component temperatures close to 1000 °C.

And because progress in the fields of engine construction as well as plant and equipment engineering brings forth new ideas daily, we are actively involved in the development of suitable gasket concepts. Welcome to VICTOR REINZ.

Due to a special property of the mica material, which prevents the gasket from burning-in or baking to the sealing surface, an anti-stick coating, as used for typical high-temperature applications, is not necessary with Xtreme® plus. This ensures optimum (dis)assembly properties at all times.

Stainless steel inner bead

Under extreme mechanical loads and high demands of sealability, a stainless steel inner bead can be integrated. Apart from higher internal pressure loading, the bead also provides better cross-sectional sealing. Depending on the requirements, the bead width can vary. Wider beads reduce the gasket's setting behavior. To increase mechanical strength, and for improved gliding properties, a one-sided bead up to the outer contour is possible as a special version.

Xtreme® plus



Schematic diagram of Xtreme® plus

Gasket concepts that fit

Gasket materials from VICTOR REINZ – absolute top-quality materials that serve one primary purpose: to provide a reliable seal against mineral and synthetic oils, fuels, anti-freeze, dust, humidity and many other media. Or, as in the case of Xtreme® plus, against aggressive

Xtreme® plus

Xtreme® plus consists of a tanged steel core, onto which a fiber-reinforced mica layer is rolled from both sides. The core material is 0,20 mm thick stainless steel (type 1.4828). Apart from mica, the material contains temperature resistant fibers as well as a very small amount of high-quality elastomers as binder.

As «hot» as fire

Wide range of properties

The properties of Xtreme® plus gaskets are «hot» in the true sense of the word. The new gasket material Xtreme® plus is distinguished by its novel composition, by the use of a heat resistant stainless steel core, and through its high sealing potential over the entire temperature range up to < 1000 °C.

Due to the high compressibility and elasticity, Xtreme® plus is extremely conformable, compensates component deformations in an optimal manner (macro adaptation) and exhibits constant material properties also under changing operating conditions. The core of tanged stainless

steel lends the material high creep stability under load, i.e. a low tendency for setting.

Xtreme® plus is resistant against media such as oils, fuels, exhaust gas, anti-freeze and many others.

Depending on the desired macro adaptation, the installation thickness can be varied between 1,2 mm and 1,6 mm. This allows component deformation to be compensated in an optimum way.



Reliable sealing in spite of typical scale loss (corrosion) of the stainless steel flange surfaces.

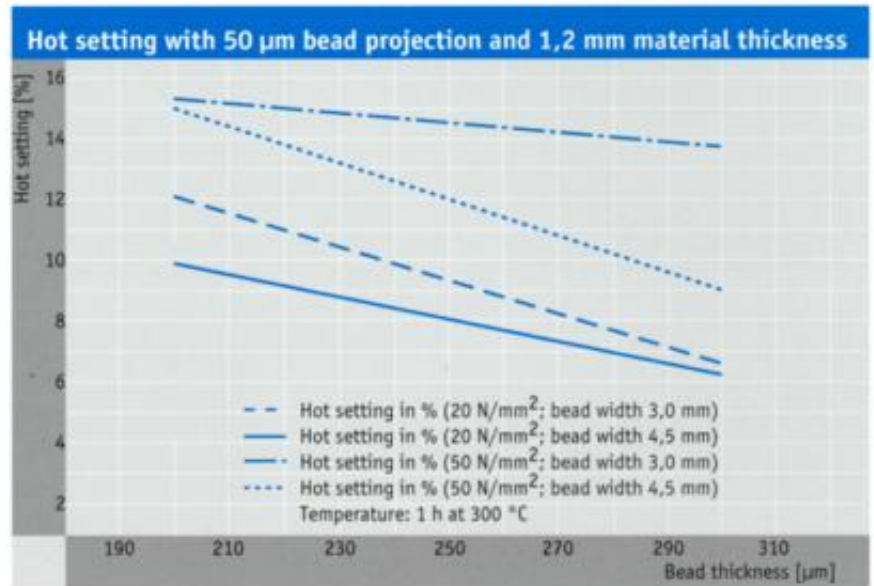
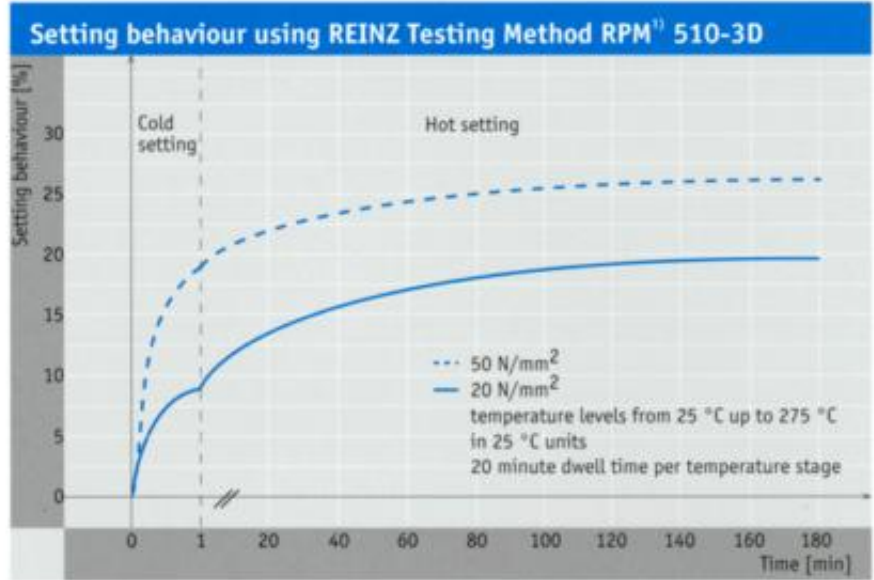
Setting behavior of Xtreme[®] plus without a stainless steel inner bead and under constant load over time according to the Reinz Testing Method RPM 510-3D. The excellent conformability to adjacent components is clearly shown.

Setting behavior as a function of bead width. The wider the bead, the lower is the gasket's tendency to set.

¹⁾ RPM = REINZ-Testing Method



Test setup with a bypass in the exhaust system for examining service life under real operating conditions.



Born under the sign of fire

Predestined for tomorrow's «hot» applications

Wherever things get hot – Xtreme® plus is the perfect gasket material for high-temperature applications in the automotive and industrial fields.

Application examples

Xtreme® plus is suitable for use in the exhaust area of all IC engine types (e.g. automotive engines, marine diesels, gas engines) between cylinder head and exhaust manifold



and in downstream flange connections to the exhaust system, for turbocharger or EGR (exhaust gas recirculation) gaskets, especially to meet the tightened emission standards according to EURO D4.

Other application possibilities are found in sealed connections on burners in heating plants, high-temperature heat exchangers, gas turbines, and similar industrial applications.



Xtreme® plus gasket for installation in an exhaust system.



Xtreme® plus gasket with stainless steel inner bead for use on an exhaust manifold.



Xtreme® plus gasket with one-sided bead up to the outer contour for use on a turbocharger.

Forms of delivery

Xtreme® plus is available with nominal thicknesses of 1,2 mm and 1,6 mm either in rolls or as finished gaskets according to a drawing, dimensions given or other agreement.

Xtreme[®] plus in detail

1) The data quoted above are valid for the material «as delivered» without any additional treatment. In view of the multiplicity of possible installation and operating conditions, definitive conclusions cannot be drawn for all applications regarding the behavior in a sealing joint. For this reason, we do not give any warranty for technical data. They do not represent warranted properties. If you have any doubt, please contact us and specify exact operating conditions.

2) We also deliver ready-to-install gaskets manufactured according to a drawing, dimensions given or some other agreement (max. width or diameter 500 mm). Should you need further technical information or a material sample, please let us know. If you already have a specific sealing or gasket problem: our application engineers will be pleased to advise you and to suggest a solution precisely tailored to your application.

Technical data ¹⁾

Stress resistance

To DIN 52 913; 16 hours, 300°C

Nominal thickness 1.2 mm [N/mm²] ~ 42

Nominal thickness 1.6 mm [N/mm²] 38

Core

Stainless steel 1.4828

Core thickness [mm] 0,20

Ignition loss of the soft material;

1 hour, 950°C [%] < 10

Compressibility and recovery

To ASTM F 36, Process J

Compressibility [%] 10 – 15

Recovery [%] > 40

Swelling to ASTM F 146

In oil, IRM 903 (replaces ASTM oil No. 3)

5 hours, 150°C

Increase in thickness [%] ≤ 5

Increase in weight [%] ≤ 15

In ASTM fuel B

5 hours, room temperature

Increase in thickness [%] ≤ 5

Increase in weight [%] ≤ 10

In water/antifreeze 50:50)

5 hours, 100°C

Increase in thickness [%] ≤ 10

Increase in weight [%] ≤ 18

Continuous temperature

Max. continuous temperature [°C] 950

Max. surface pressure at 600°C [N/mm²] 75

Form of delivery ²⁾

Nominal thicknesses

[mm] 1,2

[mm] 1,6

Tolerances [mm] ± 0,1

Rolls

Width [mm] 500

Length

Thickness 1,2 mm [m] 170

Thickness 1,6 mm [m] 120

VICTOR REINZ®



Neu-Ulm

REINZ-Dichtungs-GmbH & Co. KG

Reinzstraße 3 - 7

D-89233 Neu-Ulm

Tel. +49 731 7046-0

Fax +49 731 71 90 89

<http://www.reinz.de>

Calatayud

DANA Automoción S.A.

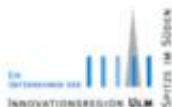
Polig. Ind. La Charluca

C/Dana Road

E-50300 Calatayud/Zaragoza

Tel. +34 976 8892-00

Fax +34 976 8892-01



People Finding A Better Way