

MatriCS MatriCS plus

MatriCS / MatriCS plus

Data Sheet 128

Edition: 08/2015, supersedes all prior editions.

Please see the latest issue at www.reinz-industrial.com

Material

MatriCS consists of an St2LG (A366) steel core 0.25 mm thick with a fiber-reinforced, high-grade NBR elastomer coating with a thickness of 0.125 mm applied to both sides.

MatriCS plus differs from MatriCS in that the core material is springy stainless steel 1.4310 (301) with a thickness of 0.2 mm, and the elastomer coating is somewhat thicker (approx. 0.15 mm).

Properties

In spite of their high mechanical strength and excellent stress resistance, both materials feature high compressibility and good recovery.

The materials' good thermal resistance should also be mentioned. They are particularly resistant to oils, fuels, antifreeze, refrigerants, and non-polar solvents.

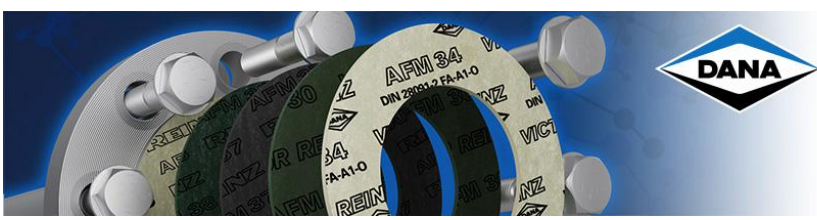
Application

- For sealed joints subjected to higher mechanical and thermal stress, e.g. intake manifolds, oil pans, valve covers, transmission covers, axle joints, engine ancillaries and valves, as well as for housing/cover joints, compressors, pumps, hydraulic equipment, threaded couplings, plugs, etc.
- Gaskets with a continuous bead should be used for components that are flexurally weak and only permit low sealing pressures, have a poor distribution of surface pressure, and with high sealing demands, as they are highly conformable even with low bolt forces, and achieve excellent sealing due to the resulting linear contact pressure.

Thanks to the springy core, beaded gaskets made of MatriCS exhibit even better fatigue strength, recovery, and sealing properties.

Surfaces

MatriCS is delivered with a non-stick coating on both sides. Therefore, additional surface treatment is unnecessary in most cases.



MatriCS MatriCS plus

Technical Data

Weight per surface unit

MatriCS	kg/ m ²	≈ 2.20
MatriCS plus	kg/ m ²	≈ 1.80

Stress resistance acc. to DIN 52 913 16 h, 300 °C	N/ mm ²	> 45
---	--------------------	------

Compressibility and recovery acc. to ASTM F 36, procedure J		
compressibility	%	4 - 10
recovery	%	> 40

Swelling acc. to ASTM F 146:		
in IRM 903 Oil (replaces ASTM Oil No. 3) 5 h, 150 °C		
increase in thickness	%	< 5

in ASTM Fuel B 5 h, room temp.		
increase in thickness	%	< 5

in water / antifreeze (50:50) 5 h, 100 °C		
increase in thickness	%	< 5

Short- term peak temperature	°C	300
-------------------------------------	----	-----

Operating temperature	°C	-40 up to +220
------------------------------	----	----------------

Installed surface pressure max., at 220 °C	N/ mm ²	100
--	--------------------	-----



The data quoted above are valid for the material "as delivered" without any additional treatment. In view of the countless possible installation and operating conditions, definitive conclusions cannot be drawn for all applications regarding the behaviour in a sealed joint. Therefore, we do not give any warranty for technical data, as they do not represent assured characteristics. If you have any doubt, please contact us and specify the exact operating conditions.

Form of delivery

Gaskets according to a drawing, dimensions supplied, or other arrangement, with or without beads, max. width 500 mm.

Nominal thickness and tolerance (mm)		
	0.50	±0.05