

# LE-SAFE ADHESIVE-FREE GROOVED GASKET WITH INTEGRAL CENTERING RING, PRE-DETERMINED BREAKING POINT AND BOTH-SIDED GRAPHITE LAYERS

6041KD20

The grooved stainless steel core [1.4404, pitch 1,0 mm] is covered on both sides with functionalized soft material layers made from expanded pure graphite using the adhesive-free LE-SAFE technology. The integral centering ring [machined] is additionally provided with a pre-determined breaking point, which prevents vibration breaks in the sealing area.



Grooved gaskets require low minimum sealing surface pressure, but can also resist very high loads.

LE-SAFE Grooved gaskets impress by a very high pressure application limit, low leakage rate and are therefore suitable for extreme operation conditions [e.g. cryogenic, oxygen, hydrogen].

To ensure the safety in oxygen applications, a batch-related test report from the Bundesanstalt für Materialforschung und -prüfung [BAM] is optionally available.

BAM [Bundesanstalt für Materialforschung und -prüfung] holds a critical view and does not recommend using, zircon or zircon alloys, titanium and titanium alloys or alloys containing titanium [e.g. stainless steels 1.4541, 1.4571] or metallic materials containing more than 2.5% aluminum for applications involving oxygen. However, the stainless steel 1.4404 used in all LE-SAFE products as a standard material is suitable for this [other suitable metallic materials are available on request - e.g. 1.4828, Hastelloy etc.]

## Operating data

Temperatur	450 °C
Temperatur [min]	-269 °C
Temperatur [max]	550 °C
Pressure [max]	500 bar

This datasheet on the internet: <https://idt-gaskets.com/products/gaskets/649a7efddce6d2cfb>

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Further sealing systems and technical information can be found [idt-gaskets.com](http://idt-gaskets.com)

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## Gasket characteristics EN 13555

Gasket Characteristics [IDT]

[https://atropim.idt-gaskets.com/upload/files/06lsx/xjzn3/8tonu/3itw6/ned8w/5h6dl/KD01-10-20-30 - 1.4404 - WS 3803 - LE-safe - 5,0 mm\\_en\\_Rev.11.pdf](https://atropim.idt-gaskets.com/upload/files/06lsx/xjzn3/8tonu/3itw6/ned8w/5h6dl/KD01-10-20-30 - 1.4404 - WS 3803 - LE-safe - 5,0 mm_en_Rev.11.pdf)

## Gasket characteristics DIN 2505 V

$K_0 \times K_d$ [N/mm]	$15 \times b_d$
k1 [mm]	$1,1 \times b_d$

## Gasket characteristics DIN 28090

$\sigma_{V0}$ [N/mm <sup>2</sup> ]	500
$\sigma_{VU 0,1}$ [N/mm <sup>2</sup> ]	15
m [DIN 28090]	1.1
$\sigma_{B0 300 \text{ °C}}$ [N/mm <sup>2</sup> ]	500

## Gasket characteristics ASME

m [ASME]	2.5
Y [PSI]	2200

## Approvals and test reports

TA Luft 2002 [VDI 24A0/2200]

DIN 30691 [lightning current carrying capacity]

DIN EN13555 [TA Luft 2021]

Fire Safe Test

Blow-out resistance

BAM oxygen

BAM oxygen [liquid]

Gas [DIN 3535-6]

EG 1935/2004

## Flange shapes

Self-centering, Raised Face [form IBC]

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