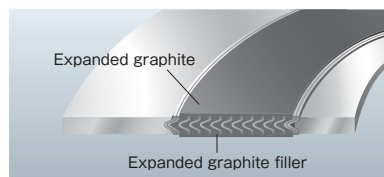


TOMBO No.

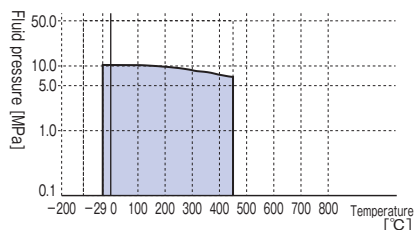
**1839R** series

GRASEAL™ Vortex™ gasket -L



- This gasket exudes a large quantity of filler on the seal face, enabling a satisfactory seal to be obtained when using a smaller tightening force than that of a normal GRASEAL vortex gasket.
- Can be used in a low-temperature line containing LNG, LN<sub>2</sub>, liquefied air, and so on.

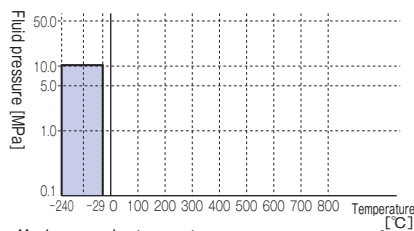
Water-type, oil-type, gas-type or corrosive fluids



Maximum service temperature 450°C

Maximum service pressure Class 600 (Approx. 10MPa)

Low-temperature fluid



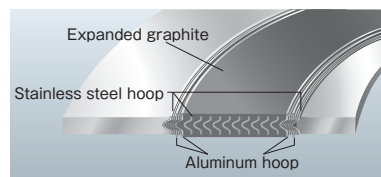
Maximum service temperature -240°C

Maximum service pressure Class 600 (Approx. 10MPa)

TOMBO No.

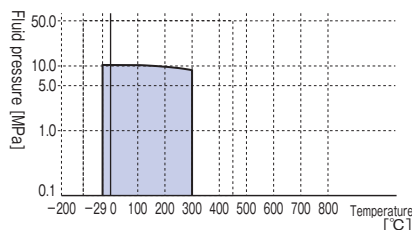
**1839R-AL** series

GRASEAL™ Vortex™ gasket -AL



- This GRASEAL vortex gasket for aluminum flanges is constructed in such a way that it does not readily damage the flange face.
- Can be used in low-temperature lines carrying LNG, LNN<sub>2</sub>, and so on.

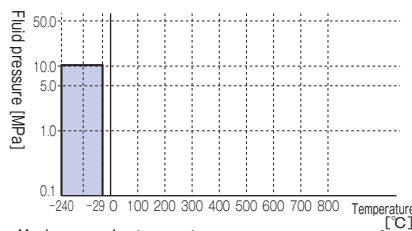
Water-type, oil-type and gas-type fluids



Maximum service temperature 300°C

Maximum service pressure Class 600 (Approx. 10MPa)

Low-temperature fluid



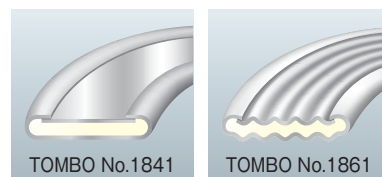
Maximum service temperature -240°C

Maximum service pressure Class 600 (Approx. 10MPa)

TOMBO No.

**1841/1861**

Metal jacketed gasket/Corrugated metal jacketed gasket



- This gasket can be manufactured in various shapes, such as a branched type, according to the particular application and the intended location.
- It is used in heat exchangers, pressure vessels, towers and vessels, equipment, valves, high-temperature coupling flanges, manholes, and so on.

The maximum service temperature of a metal jacket differs according to the type of core material and cover metal.

Maximum service temperature for different core materials

Millboard	530°C
Millboard for high-temperature	1300°C
Expanded graphite	400°C

Maximum service pressure

6MPa

Maximum service temperature by cover metal

Carbon steel	535°C
304 steel	800°C
316 steel	800°C
Copper	400°C
Aluminum	400°C
310S steel	1150°C
Monel	800°C