

# Compressed Non-asbestos Fiber Sheets

## Valqua No. VGS02

Compressed Non-asbestos Fiber Sheets NO. VGS02 is general use non asbestos joint sheet which was developed for low-pressure application. It has superior cost performance, easy handling and readily processable. It is compatible with various application from general pipings to component parts.

### Applications

Best choice as gasket or joint area for pipe flange, valve bonnets and cover of other equipments.

### Applicable fluids

Air, water, seawater, hot water, steam, general oils, weak acid, weak alkali, alcohol, as well as various gases

### Inapplicable fluids

Strong oxidizing acid, strong alkali, and various solvents

### Standard size

unit: mm

Thickness	Width x Length
0.5 0.8 1.0 1.5 2.0 3.0	1,500 × 4,500

<Color tone> Blue (print color: Black)

### Design data

#### Available ranges

Temperature (°C)	Pressure (MPa)		
	Water based	Oil based	Gas
-50~160	2.5	2.0	1.0

Notes) Temperature and pressure classifications show individual service limit (refer to the right graph).

#### m, y values

Thickness (mm)	m	y (N/mm <sup>2</sup> )
3.0 (3.2)	2.00	11.0
1.5 (1.6)	2.75	25.5
1.0 (0.8)	3.50	44.8

Notes) As for the m, y values of Compressed Non-asbestos fiber sheet.

the values for Compressed Asbestos Fiber sheets defined in the

Appendix 3 to JIS B8265 can be applied.

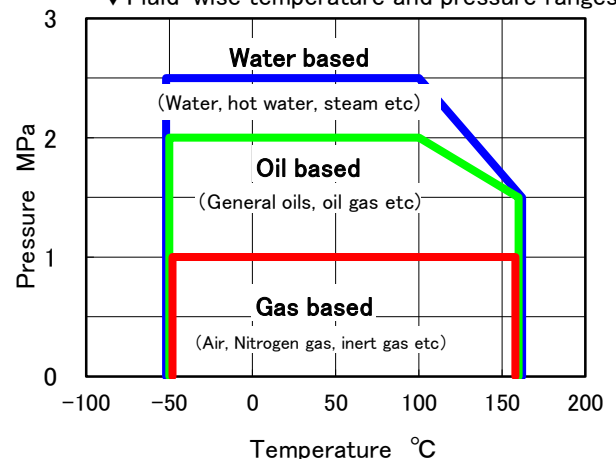
#### Recommended tightening stress

Tightening stress is defined as a pressure required under standard condition without considering opening force due to internal fluid.

In case of gas seals, please use "Gasket paste" at the same time. (It's effective to prevent corrosion of space).

Fluid	Recommended tightening stress(MPa)
Liquid	25.5
Gas	40.0

#### Fluid-wise temperature and pressure ranges



NOTE: For service conditions exceeding 100°C, the notes on the following shall be observed.

- ① Gasket thickness shall be 1.5mm or less.
- ② Gasket paste shall be applied.
- ③ Tightening stress shall be 30 MPa or higher.
- ④ These joint sheets shall be used for places unlikely to be piping load, or for places facilitating replacement.
- ⑤ To increase compressive load on the gasket, the use of ring gaskets with OD size which is inside of bolts is recommended.

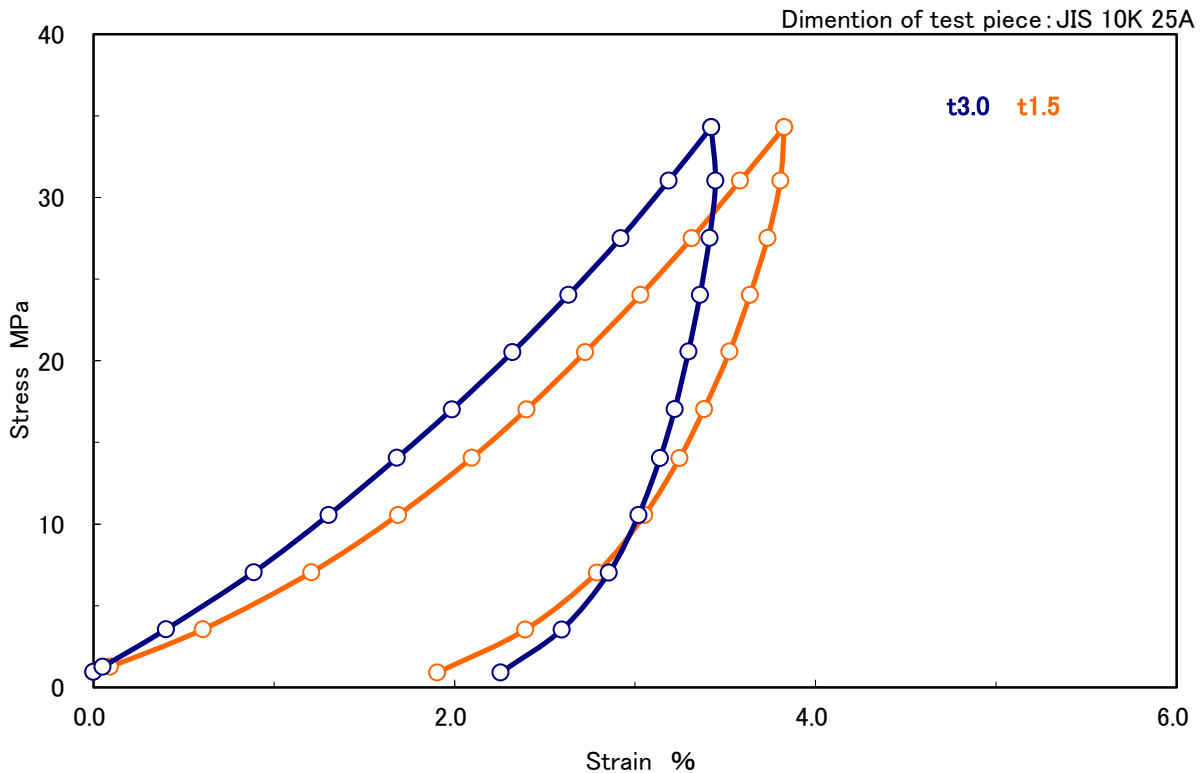
## ■ Gasket Features ■

### ▼ Physical properties

Item	Test Method	No.VGS02
Thickness mm	—	1.5
Physical properties		
Tensile strength_across MPa	ASTM F152	16.7
Compressibility %	ASTM F36J	7.8
Recovery %	ASTM F36J	69
Density g/cm <sup>3</sup>	DIN 28090-2	1.85
Oil resistance <IRM903OIL 150°C × 5h>		
Thickness increase %	ASTM F146	2.0
Fuel oil resistance <ASTM Fuel B RT × 5h>		
Thickness increase %	ASTM F146	3.3
Sealability <Gasket Size φ90 × φ50 × t1.5 Tightening stress 32MPa Internal pressure 4.0MPa N <sub>2</sub> Gas>		
Specific Leak Rate ml/min	DIN 3535-6	0.2

Note) All the above physical properties are measured examples, and not regulatory values

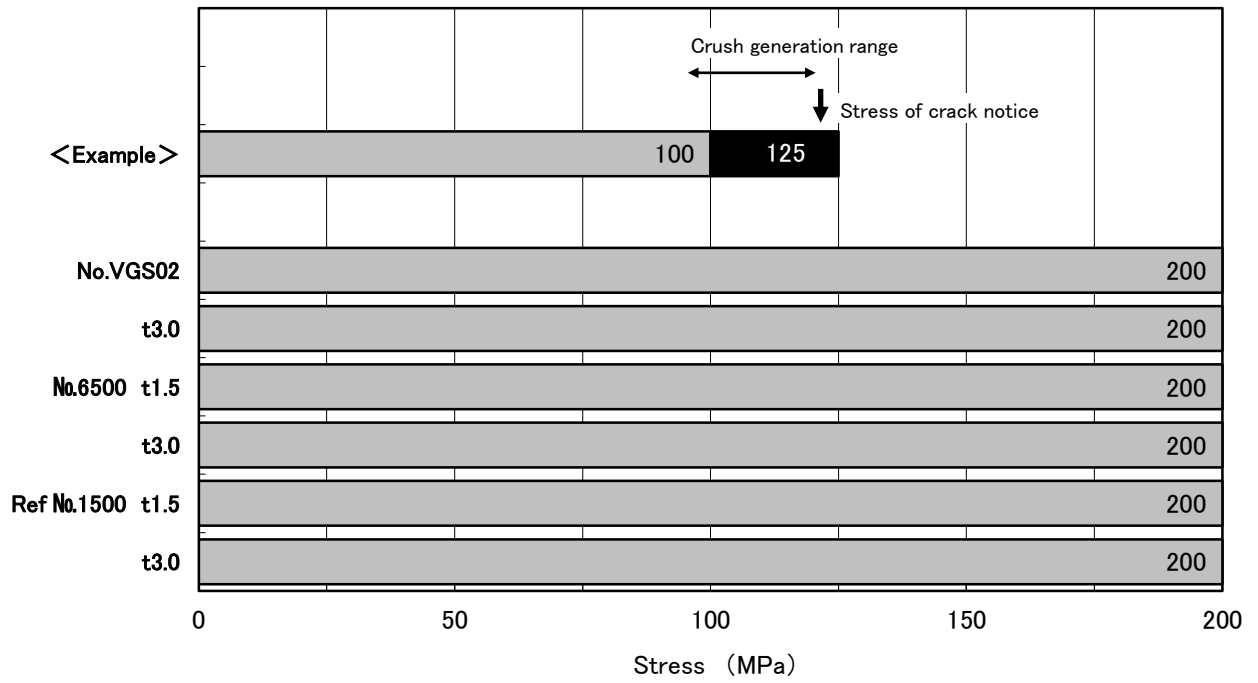
### ▼ Stress strain characteristics



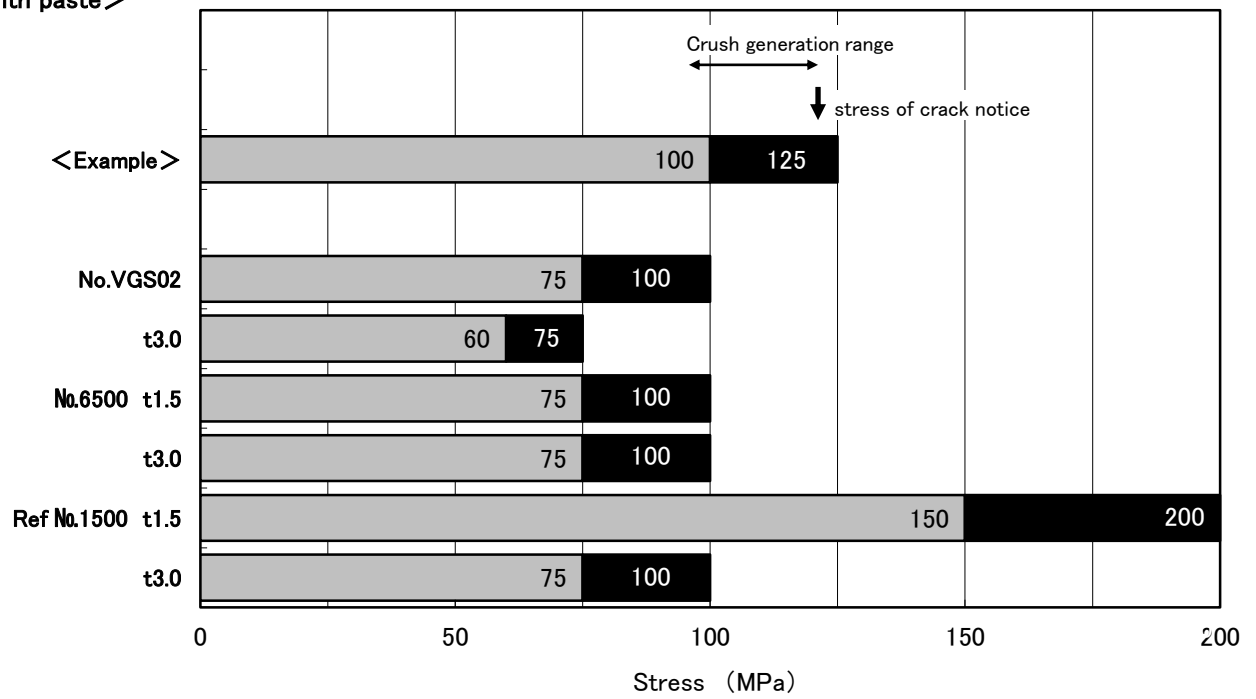
### ▼ Crush strength comparison

- Size of test piece : φ 100 × φ 64
- Point of stress load : ①50MPa、②60MPa、③75MPa、④100MPa、⑤125MPa、⑥150MPa、⑦200MPa
- Surface roughness : Ra=5.7 μ m、Rz=22.0 μ m
- Judgement of crush : Generation of crack

<Without paste>



<With paste>



※ With VALQUA SEAL PASTE.