

Table for Selection of Non-Asbestos Gland Packing for Valve Stems

Gland Packing

□ : Critical Specification ○ : Products containing PFAS

◎ : Recommended products ○ : Combination recommended products		VALQUA No.											
		 No.8133 ¹⁾	 No.6232	 No.7233 ²⁾	 No.VFT-22	 No.8137	 No.6399L	No.VF-25L	No.VF-10 No.VF-20 No.VF-20L No.VF-20LF	No.6267	No.1110	No.6345	No.VFC-25
Temperature limit (°C)		260	260	260	300	260	260	650 <400 ⁴⁾	650 <400 ⁴⁾	350	350	650 <400 ⁴⁾	650 <400 ⁴⁾
Pressure limit (MPa)		10.3	10.3	10.3	10.3	15.5	25.9	25.9	43.1	15.5	25.9	25.9	43.1
pH		2~3	0~14	0~14	0~14	2~13	0~14	0~14	0~14	0~14	5~9	0~14	0~14
Correspondence to ANSI rating Class	Class 2500												
	Class 1500												
	Class 900												
	Class 600												
	Class 300												
	Class 150												
Water based fluid	Fresh water, seawater, heated water				○	○	○		○				
	Superheated steam, Saturated steam				○	○	○		○				
Oil based fluid	Animal & vegetable oil, mineral oil, heavy fuel oil				○	○	○		○				
	Heat transfer oil (except HTS)				○			○	○	○			
Solvent	Alcohol based solvent			○	○	○			○				
	Aromatic based solvent			○	○	○			○				
	Ketone & ester			○	○	○			○				
Corrosive fluid	Weak acid & alkali		○		○	○	○		○				
	Strong acid (except oxidizing acid)			○	○				○				
	Oxidizing acid & oxidizing agent ³⁾			○									
	Strong alkali		○	○	○		○		○				
Gas based fluid	Nonflammable gas & inflammable gas								○				
	Gas susceptible to burn			○									
	Liquefied gas								○				

Remarks : This selection table lists up products recommended by us for various conditions, and does not necessarily mean that non-marked items can not be used. It should also be noted in advance that, depending on the service conditions, abrasion powder may be mixed into the working fluid.

Notes 1) For gas based fluid, 8133L should be used.

2) For gas based fluid, 7233 (O), 7233 (SO) should be used, while for gas susceptible to burn, 7233 (FO).

3) 7233 is the only one applicable to oxidizing acid.

4) Temperature limit in air.

5) In case of combining with VF-10, VF-20, VF-20L, VF-20LF.

WARNING : Properties / applications shown throughout this brochure are typical. Your specific application should not be undertaken without independent study and evaluation for suitability. For specific application recommendations consult Valqua. Failure to select the proper sealing products could result in property damage and / or serious personal injury. Performance data published in this brochure has been developed from field testing, customer field reports and /or in-house testing. While the utmost care has been used in compiling this brochure, we assume no responsibility for errors. Specifications subject to change without notice. This edition cancels all previous issues. Subject to change without notice.

□ : Critical Specification ○ : Products containing PFAS

◎ : Recommended products		VALQUA No.											
		No.7262	No.8132	No.6234	No.7202E	No.7202W	No.7202	No.6262	No.8201	No.7203	No.VF-22	No.6345	No.1110
Temperature limit (°C)		260	260	200	260	260	260	260	260	260	650 (400 ¹⁾)	650 (400 ¹⁾)	350
Pressure limit (MPa)		1.6	1.0	1.0	1.6	1.6	1.6	1.6	2.0	2.0	2.5	2.0	2.0
Speed limit (m/s)		5	10	15	16	16	20	20	16	20	20	20	20
Permissible PV value (MPa·m/s)		4.9	6.4	11.7	12.3	12.3	12.3	14.7	14.7	14.7	24.5	14.7	19.6
pH		0~14	2~13	2~12	0~14	0~14	0~14	0~14	2~13	2~13	0~14	0~14	2~13
Attack to shaft		Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Fair	Good	Excellent	Excellent	Fair
Water based fluid	Clean water, refreshing beverage					◎							
	Fresh water, seawater, sewage water		◎	◎				◎			◎		
	Slurry liquid, muddy water								◎	◎			
	Heated water, boiler feed water, low pressure steam						◎	◎	◎	◎	◎		
Oil based fluid	Mineral oil, animal & vegetable oil		◎	◎	◎	◎	◎						
	Heat transfer oil										◎		
	Crude oil & heavy fuel oil								◎	◎			
Solvent	Alcohol based solvent		◎		◎	◎	◎				◎		
	Aromatic hydrocarbon				◎	◎	◎				◎		
	Ketones & ethers				◎	◎	◎				◎		
Corrosive fluid	Weak acid & alkali		◎	◎									
	Strong acid (except oxidizing acid)				◎	◎	◎	◎			◎		
	Oxidizing acid & oxidizing agent	◎											
	Strong alkali				◎	◎	◎	◎			◎		
	Pulp liquid						◎		◎	◎			
Others	Refrigerants (chlorofluorocarbons)				◎	◎	◎				◎		
	low temperature liquefied fluid				◎	◎	◎				◎		

Note 1) Temperature limit in the air

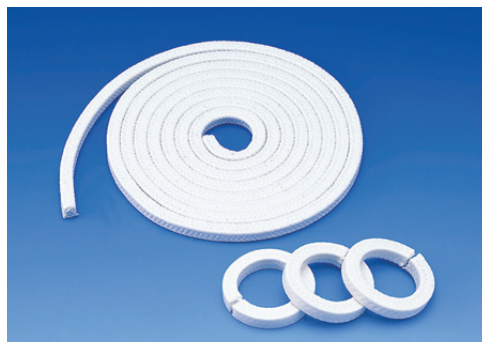
Table for Selection of Non-Asbestos Gland Packing for Equipment

Gland Packing

□ : Critical Specification ○ : Products containing PFAS

◎ : Recommended products			VALQUA No.																
			No.7232	No.6234	No.8132	No.6262	No.7202E	No.7202W	No.7202	No.8201 (NL)	No.7203	No.8201	No.6232	No.8137	No.VF-22	No.6399	No.6345	No.6399H	No.1110
Temperature limit (°C)			260	260	260	260	260	260	260	260	260	260	260	260	650 (400 ¹⁾)	300	650 (400 ¹⁾)	300	350
Pressure limit (MPa)			4.9	4.9	4.9	4.9	4.9	4.9	4.9	9.8	9.8	9.8	9.8	14.7	14.7	24.5	14.7	39.2	24.5
Speed limit (m/s)			1	5	1	5	5	5	5	1	5	5	5	1	5	5	5	5	5
pH			0~14	2~12	2~13	0~14	0~14	0~14	0~14	2~13	2~13	2~13	0~14	2~13	0~14	0~14	0~14	0~14	5~9
Attack to shaft			Excellent	Excellent	Excellent	Good	Excellent	Excellent	Excellent	Fair	Good	Fair	Good	Excellent	Excellent	Good	Good	Fair	Fair
Application classification	Reciprocating motion	Plunger pump								◎	◎	◎		◎	◎	◎			
		Soot blower											◎		◎	◎			
		Expansion joint			◎										◎	◎			
	Rotating motion	Agitator	◎	◎	◎		◎	◎	◎	◎	◎	◎		◎	◎				
		Screw feeder								◎	◎			◎	◎				
		Dryer	◎	◎			◎	◎	◎		◎				◎				
		Gear pump, ...etc				◎			◎	◎	◎	◎		◎	◎				
Water based fluid	Clean water, seawater		◎	◎		◎	◎	◎					◎	◎	◎				
	Sewage water, muddy water								◎	◎	◎		◎	◎	◎				
	Heated water, boiler feed water, low pressure steam		◎		◎	◎	◎	◎	◎	◎	◎	◎		◎	◎				
Oil based fluid	Mineral oil, animal & vegetable oil			◎						◎	◎		◎						
	Heat transfer oil													◎					
	Crude oil & heavy fuel oil								◎	◎	◎		◎						
Fine particle etc.	Fine particle									◎	◎		◎						
	Slurry liquid								◎	◎	◎		◎						
	Polymer	◎							◎				◎		◎				
Gas in general	Air, gas	◎	◎			◎	◎	◎						◎					
	Solvent vapor, etc.	◎	◎	◎		◎	◎	◎					◎	◎	◎				

Note 1) Temperature limit in the air



▲ No.7202W



▲ No. 7203



▲ No.7232



▲ No.7262

For high shaft speed pumps and rotary equipment for handling versatile chemical fluids

VALQUA No. 7202W

Coil packing made of PTFE fiber including white filler and lubricating oil, braided tight into a square cross section.

- ▶ These are excellent in thermal expansion resistance, heat conductivity, and chemicals resistance.
- ▶ Shaft wear due to packing is negligible.
- ▶ These can be used for higher peripheral speed applications than 100% PTFE gland packing.
- ▶ These comply with the Food Sanitation Law, and the Regulations concerning Food & Additives.

For rotating shafts of agitators and the like

VALQUA No. 7203

Coil packing made of PTFE fiber yarns integrated with graphite and lubricating oil and of aramid fiber yarns, processed with PTFE and lubricating oil so as to form the corner section made of aramid fiber, then braided tight into a square cross section.

- ▶ This is a high performance hybrid packing that is featured with the strength of aramid fiber and with the lubrication property of graphite-integrated PTFE fiber yarn.
- ▶ Having characteristics similar to those of No.7202, but these No.7203 are best suited for shaft seals in use for rotating machines and reciprocating machines subject to still higher pressure and load.
- ▶ Products with a dimension □ 6.5mm or larger are available.

For corrosive fluids

VALQUA No. 7232

Coil packing made of PTFE fiber yarns, processed with PTFE dispersion, then braided into a square cross section.

- ▶ Being made of 100% PTFE, these are resisting to almost all fluids.
- ▶ Thus, these are best suited for shaft seals of rotating machines such as agitators handling corrosive fluids. Depending on service conditions, they may also be applied as shaft seals for valves and reciprocating motion machines.
- ▶ No.7232 (SO) should be used when low torque or gas sealing property is required.
- ▶ These comply with the Food Sanitation Law, and the Regulations concerning Food & Additives.

For corrosive fluid valves

VALQUA No. 7233

Coil packing made of PTFE fiber yarns, processed with PTFE dispersion, then braided into a square cross section.

- ▶ Being made of 100% PTFE, these are resisting to almost all fluids.
- ▶ Thus, these are best suited for chemical use valve shaft seals for handling corrosive fluids.
- ▶ When low torque or gas sealing property is required, use the following products which are treated with lubricating oil:
 - No.7233 (O) for general gas based fluids
 - No.7233 (SO) for low temperature use of inflammable gas and liquefied gas
 - No.7233 (FO) for gas susceptible to burn such as oxygen and ozone.
- ▶ These comply with the Food Sanitation Law, and the Regulations concerning Food & Additives.

For low & medium shaft speed pumps and rotary equipment for handling corrosive fluids

VALQUA No. 7262

Coil packing made of PTFE fiber yarns, processed with PTFE dispersion and lubricating oil, then braided into a square cross section.

- ▶ Flexible and compatible with shafts, these are excellent in sealing property.
- ▶ Being highly excellent in chemicals resistance, these are best suited for pumps handling corrosive fluids.