

These gaskets consist mainly of elastomer. Consequently, they feature good sealing with the flange, even under low tightening pressure.

TOMBO™ No.

9014-B/BW

SANICLEAN™ gaskets for ferrules



Conforms to the Standards and criteria for food and food additives, etc. (3-D-2, Public Notice No. 370 of the Ministry of Health & Welfare, 1959) stipulated by the Food Sanitation Act

* This applies to PTFE film used on the face that is in contact with the fluid.

TOMBO™ No.

9014-A

SANICLEAN™ gaskets for screw coupling



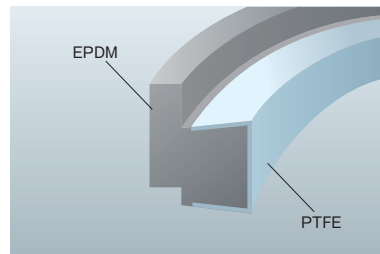
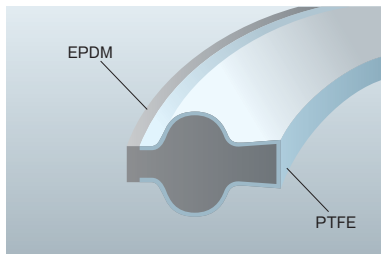
TOMBO™ No.

2670/2675

Elastomer O-rings/BLAZER™ O-rings



This sandwiched type combination gasket is an elastomer sanitary gasket covered with PTFE film, realizing excellent resistance against chemicals, heat, and contamination.



- Because the entire face in contact with the fluid is made of PTFE⁽¹⁾, the surface is not degraded by hot water, hot caustic fluid, or chlorine water used in a sanitation⁽²⁾ process.
- Because the entire face in contact with the fluid is made of PTFE, there is little adhesion or penetration of liquid, so these gaskets are effective for preventing contamination of flavor during a flavor change⁽³⁾.
- The use of these gaskets reduces the duration of the sanitation process during a flavor change, contributing to improved productivity.

* The method of using these gaskets is basically the same as conventional elastomer sanitary gasket, and is easy, however it is necessary to carry out additional tightening work.

Note: (1) PTFE used on the fluid contact surface of TOMBO™ No.9014 (SANICLEAN™ gasket) has passed the elution test for plastic implement, container and package specified in 3-D-2 of the standard covering foodstuffs and additives, etc. (Public Notice No.370, 1959).

(2) Sanitation: This is cleaning work carried out using tap water, chlorine water, hot water or hot caustic fluid.

(3) Flavor change: This is a change of a production item on a beverage production line, such as a product filler line, which is shared among several kinds of beverages.

Service temperature range -30 - 150°C

Maximum service pressure 1.0MPa

TOMBO™ No.9014-B for ferrule Black EPDM

TOMBO™ No.9014-BW for ferrule White EPDM

For details of standard dimensions, see P.61.

Elastomer O-rings are manufactured from various kinds of elastomer using a die.

- These elastomer O-rings provide a good sealing, even under a small tightening force, and can provide a seal from a vacuum to a high pressure of about 25MPa.
- In addition to their use as shaft seals (packing), these elastomer O-rings can be inserted into a groove and used as gaskets.

Service temperature range Depends upon the elastomer material.

Maximum service pressure 25MPa

* These O-rings can also be used at pressures above 25MPa, provided that consideration is given to clearances, backup rings, etc.

For details of the elastomer materials, see P.61.

For details of standard dimensions and basic physical properties, see P.61.

Product name

Construction

Features

Service range

Lineup

Elastomer Gaskets



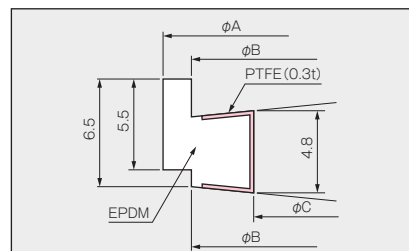
TOMBO™ No. 9014 series

SANICLEAN™ gaskets

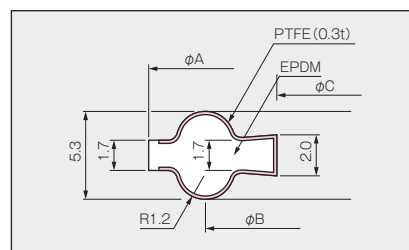
Standard dimensions

Nominal dimension [inch]	TOMBO™ No.					
	9014-A (for screw coupling) [mm]			9014-B (for ferrule) [mm]		
	φA	φB	φC	φA	φB	φC
1	32.5	29.2	23.0	49.5	43.5	23.1
1 1/2	46.0	42.7	35.6	49.5	43.5	35.8
2	59.5	56.2	47.8	63.0	56.5	48.0
2 1/2	73.0	69.9	59.5	76.5	70.5	59.7
3	86.5	82.6	72.1	90.0	83.5	72.3
4	112.5	108.3	97.6	118.0	110.0	97.8

* The standard dimensions of TOMBO™ No.9014-A, B and BW are determined based on the IDF standard. It can also be used for screw couplings and clamp type couplings stipulated by ISO2852 and ISO2853.



TOMBO™ No.9014-A (for screw coupling)



TOMBO™ No.9014-B and BW (for ferrule)



TOMBO™ No. 2670 / 2675

Elastomer O-rings

Standard dimensions

- JIS B 2401 "O-rings," ● AS 568B "Aerospace size standards for O-rings," ● JIS B 8365 "Dimensions of Clamped-type Vacuum Couplings"

Service temperature and basic physical properties

ASTM code		FFKM			Special FKM		FKM		Q	EPDM	CR	NBR
Product name		BLAZER™ next	BLAZER™ A	BLAZER™ S2	BLAZER™ FC	BLAZER™ FE	Fluoro elastomer FB	Fluoro elastomer FA	Silicone elastomer	Ethylene- propylene elastomer	Chloroprene elastomer	Nitrile elastomer
Material symbol		BNX	A	S2	FC	FE	FB	FA	SI	EP	CR	NBR
Features		Heat-resistance	Chemical-resistance	Vapor-resistance	Plasma-resistance	Plasma-resistance	Acid-resistance and vapor-resistance	Heat-resistance	Heat-resistance	Weather-resistance and water-resistance	Weather-resistance and oil-resistance	Mineral oil-resistance
JIS class		—	—	—	—	—	—	FKM-70	VMQ-70	EPDM-70	—	NBR-70
Color tone		Black	Black	Black	Black	Black	Black	Black	Reddish brown	Black	Black	Black
Service temperature range (rough guide) [°C]		0~335	0~210	0~320	0~200	0~200	0~200	-15~200	-50~200	-40~150	-30~120	-30~120
Physical properties in normal state	Hardness measured using a type A durometer	76	75	80	60	60	70	69	70	70	67	68
	Tensile strength [MPa]	11.1	13.1	15.3	18.8	11.4	15.7	15.3	6.3	15.3	12.8	16.4
	Elongation [%]	140	150	198	210	230	460	300	260	280	260	300
	Tensile stress [at 100% elongation]	8.3	6.4	15.6	3.9	3.5	2.8	3.3	—	—	4.2	3.0
Compression set property	Temperature × Time [°C] × [hrs]	300×72	150×72	300×72	100×72	100×72	175×24	200×72	175×72	100×72	100×72	120×72
	Compression set [%]	26	20	45	9	9	20	22	27	8	29	13
Aging resistance	Temperature × Time [°C] × [hrs]	—	—	—	—	—	230×24	230×24	230×72	100×72	100×72	120×72
	Change of hardness measured using a type A durometer	—	—	—	—	—	0	+1	-6	+1	+9	+4
	Tensile strength rate of change [%]	—	—	—	—	—	-13.0	-5	-8	+9	+8	-3
	Elongation rate of change [%]	—	—	—	—	—	-6.0	0	-23	+4	-23	-29

* In addition to the above, butyl elastomer (IIR), hydrogen added nitrile elastomer (ZR) are also available.

* The table above indicates the general physical properties of elastomer O-rings. For more details, please refer to the "Elastomer O-rings" catalog.