

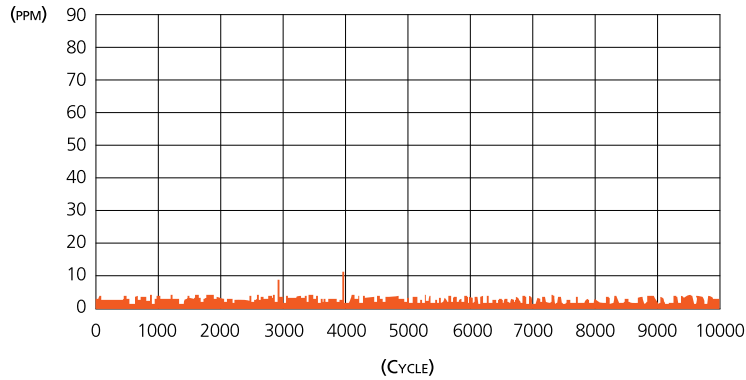
Use environment

Temperature		
	Non-Oxidation	: -240 ~ 1,650°C
	Oxidation	: -240 ~ 650°C
Pressure		: Class 800LB ~ 2500LB

PERFORMANCE TEST

TYPE OF PACKING	.....	KUKIL K/# FV101A
SIZE OF PACKING	.....	800# 1 1/2"
TEST FLUID	.....	99.99% HELIUM GAS
TEST PRESSURE	.....	10.5 KGF/CM ²
TEST TEMPERATURE	.....	AMBIENT
TOTAL NUMBER OF MECHANICAL CYCLES	.....	10 PCS (10,000SEC)
CYCLING RATE	.....	1 CYCLE / 1000SEC
GAS DETECTOR	.....	HELTTEST 969-3501

RESULTS



VOC PACKING | GENERAL PACKING

■ Mold ring



K/#101AG

It is made of pure GRAFLEX foils. It is effective for preventing corrosion of the valve stem and valve body as it uses corrosion inhibitor GRAFLEX. It is used as set combination with K/#R601W.



K/# 101BG

Pure GRAFLEX gathered is formed. Compared with K/#101AG, it has less GRAFLEX crush phenomena due to stem movement, and it has excellent cushion work. Using corrosion inhibitor GRAFLEX, it is effective in preventing corrosion of the valve stem and valve body. K/#N101BG is used for nuclear power generation. It is used as a set combination with K/#R601M.

■ Mold ring



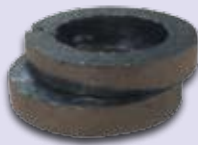
K/# 101AP

Pure P.T.F.E is formed. It is used for valves which should not be contaminated by internal fluid. It has high acid resistance and basicity resistance. Therefore, it can be used for all fluids. It is usually used with K/#R701 or K/#R702.



K/# 101AGC (101BGC)

Pure GRAFLEX foil or pure GRAFLEX gathered is formed. It can be inserted into the valve without disassembly. It is mainly used to replace valve packing during plant shut down. Using corrosion inhibitor GRAFLEX, it is effective in preventing corrosion of the valve stem and valve body. It is mainly used with K/#R601W or K/#R601M.



K/# R601W



Heat resisting packing, K/#601W is formed in the mould by reinforcing GRAFLEX filament yarn with inconel wire. The outside of inconel is coated with GRAFLEX, possessing excellent heat resistance and heat conductivity and excellent heat emission property to friction heat. It is generally used for high temperature and pressure valves. It is generally combined with K/#101AG as a set and used for the top and bottom.



K/# R601M

The heat resisting packing, K/#601M, is formed in the mold by reinforcing GRAFLEX filament yarn with inconel yoke mesh. The internal GRAFLEX is wrapped with inconel yoke mesh and it has better shock and heat resistance than K/#601-M. It is usually used for valves for high temperature and pressure applications as it has excellent heat resistance, heat conductivity and heat emission property against friction heat. It is usually combined with K/#101BG as a set and is used for top and bottom.

■ General combinations

Class	K/# 101AG + R601W or K/# 101AGC + R601W	K/# 101BG + R601M or K/# 101BGC + R601M
150#	O (5EA / SET)	O (5EA / SET)
300#	O (5EA / SET)	O (5EA / SET)
600#	-	O (5EA / SET)
900#	-	O (6EA / SET)
1500#	-	O (6EA / SET)
2500#	-	O (7EA / SET)
		

Summary of products number

	Type No.	Raw-material
GRAFLEX Mold Ring ^{note 1)}	K/# 101AG	Use GRAFLEX foil
	K/# 101BG	Use GRAFLEX gathered
	K/# N101BG	Packing for nuclear power generation
	K/# 101AGC	Use GRAFLEX foil and cutting
	K/# 101BGC	Use GRAFLEX gathered and cutting
P.T.F.E Mold Ring	K/# 101AP	P.T.F.E foil use
	K/# 101APC	P.T.F.E. foil use and cutting
Packing Ring	K/# R601W	Inconel Wire Reinforced Pure GRAFLEX Fiber
	K/# R601M	Inconel Yoke Mesh Reinforced Pure GRAFLEX Fiber
	K/# R602	Lubricated P.T.F.E Impregnated Carbon Fiber
	K/# R604	Lubricated P.T.F.E Impregnated Carbonized Fiber
	K/# R701	Pure P.T.F.E Fiber (Dry Type)
	K/# R702	Lubricated P.T.F.E Impregnated P.T.F.E Fiber (Wet Type)
	K/# R703	Pure P.T.F.E Fibre & G.F.O Fiber
	K/# R802	Lubricated G.F.O & Aramid Fiber
	K/# R803	Aramid Fiber

Notes

(1) Shape of GRAFLEX used

A. Foil Type



B. Gathered Type



■ NON - ASBESTOS PACKING - 600 SERIES : GRAFLEX

INCONEL WIRE REINFORCED PURE GRAFLEX FIBER BRAIDED PACKING



K /# 601-W

This is a product made by reinforcing GRAFLEX with inconel wire which is good thermostable and by knitting fret work elaborately. It is a packing to keep the stable efficiency in high temperature and high pressure, and as elastic to make up for defects of the conventional GRAFLEX Mold packing and was developed particularly for valve packing.

• SERVICE

-Max. Temperature	Non-oxidation	: -240 °C~1,650 °C	-Max. Pressure	VALVE	: 600Kg _f /cm ²
	oxidation	: -240 °C~450 °C		PUMPS	: 35Kg _f /cm ²
	Steam	: -240 °C~650 °C		-pH Range	: 0~14

*[K/# 601]PURE GRAFLEX BRAIDED PACKING

INCONEL YOKE MESH REINFORCED PURE GRAFLEX FIBER BRAIDED PACKING



K /# 601-M

This is a product made by reinforcing GRAFLEX with inconel yoke mesh which is good thermostable and by knitting fret work elaborately. It is a packing to keep the stable efficiency in high temperature and high pressure, and as elastic to make up for defects of the conventional GRAFLEX Mold packing and was developed particularly for valve packing.

• SERVICE

-Max. Temperature	Non-oxidation	: -240 °C~1,650 °C	-Max. Pressure	VALVE	: 600Kg _f /cm ²
	oxidation	: -240 °C~450 °C		PUMPS	: 35Kg _f /cm ²
	Steam	: -240 °C~650 °C		-pH Range	: 0~14

LUBRICATED P.T.F.E IMPREGNATED CARBON FIBER BRAIDED PACKING



K /# 602

High - quality Carbon fiber yarns are square-braided & interlock-braided into a coil of square cross section, impregnated with P.T.F.E dispersion & a special heat - resisting lubricants. It is good thermostable & chemical stable & has a long service life because of self - lubricating & excellent heat - radiation by high - thermal conductivity.

• SERVICE

-Max. Temperature	Air	: 345 °C	-Max. Pressure	VALVE	: 300Kg _f /cm ²
	Steam on non-oxidation	: 650 °C		PUMPS	: 35Kg _f /cm ²
			-pH Range		: 0~14

*[K/# 603]P.T.F.E IMPREGNATED CARBON FIBER BRAIDED PACKING

LUBRICATED P.T.F.E IMPREGNATED CARBONIZED FIBER BRAIDED PACKING



K /# 604

PAN(Ploy Acrylonitile) - Carbonized fiber yarns are square - braided & interlock - braided into a coil of square cross section, impregnated with P.T.F.E dispersion & a special heat - resisting lubricants.

Covering wide range of applications & efficient sealability for high speed shafts. Also has a feature not to wear out shaft sleeve because of its self - lubricant. Recommended to replace asbestos packing. It is good thermostable, chemical stable in used for a pump, valve.

• SERVICE

-Max. Temperature	: 200 °C	-Max. Pressure	VALVE	: 200Kg _f /cm ²
			PUMPS	: 50Kg _f /cm ²
		-pH Range		: 2~12

*[K/# 605]P.T.F.E IMPREGNATED CARBONIZED FIBER BRAIDED PACKING

■ NON - ASBESTOS PACKING - 700 SERIES : P.T.F.E

PURE P.T.F.E FIBER BRAIDED PACKING(DRY TYPE)



K /# 701

Pure P.T.F.E fiber yarns are square - braided or interlock - braided into a coil of square cross section. This is not impregnated with P.T.F.E dispersion nor lubricant (general type). Suitable for the place where contamination must be avoided. Since it is not lubricated or impregnated, it has a trend to cause heat & there to the shaft in operation due to the nature of P.T.F.E (high coefficient of thermal expansion & low thermal conductivity in spite of low coefficient of friction). If such a case is expected, preferably employ any outer cooling device. Version treated with P.T.F.E dispersion available upon request.

• SERVICE

-Max. Temperature : -200 °C ~ 260 °C

-Max. Pressure VALVE : 200Kg_f/cm²

PUMPS : 10Kg_f/cm²

-pH Range : 0~14

LUBRICATED P.T.F.E IMPREGNATED P.T.F.E FIBER BRAIDED PACKING(WET TYPE)



K /# 702

Pure P.T.F.E fiber yarns treated with special heat - resistant lubricants are square-braided or interlock - braided into a coil of square cross section, impregnated with P.T.F.E dispersion. Low coefficient of friction results in easy shaft running. It is the most corrosion - resistant, low friction - resistant & mechanically tough. It is a chemical packing completely inert to all except molten alkali metals.

• SERVICE

-Max. Temperature : -240 °C ~ 280 °C

-Max. Pressure VALVE : 200Kg_f/cm²

PUMPS : 20Kg_f/cm²

-pH Range : 0~14

G.F.O® FIBER BRAIDED PACKING



K /# 703

P.T.F.E fiber yarns lubricated with GRAFLEX particles (G.F.O fiber) are interlock braided into a coil of square cross section. The GRAFLEX acts as a heat transfer media to dissipate heat generated at the pump shaft allowing it to travel through the packing to the stuffing box. Excellent chemical - resistant, heat-resistant & low - coefficient of friction. This self - lubricating packing does not score the shaft & minimizes sleeve replacement cost.

• SERVICE

-Max. Temperature : -200 °C ~ 280 °C

-Max. Pressure VALVE : 500Kg_f/cm²

PUMPS : 20Kg_f/cm²

-pH Range : 0~14

EXPANDED P.T.F.E SOFT SEALANT



K /# 704

Expanded P.T.F.E soft sealant is a P.T.F.E product manufactured from a unique, physically networked fibrillated material. It is composed of specially prepared fluorocarbons with excellent resistance to aggressive chemicals as well as offering secure sealing under high pressures-even permitting the use of the material in applications up to 200 bar internal pressure ratings.

Expanded P.T.F.E soft sealant can be applied to any sealing face, giving excellent sealing performance even at low bolt loads.

• SERVICE

-Max. Temperature : -240 °C ~ 290 °C

-Max. Pressure : 200Kg_f/cm²

-pH Range : 0~14

■ NON - ASBESTOS PACKING - 800 SERIES : OTHERS

EXPANDED GRAPHITE CLOTHS



K /# 801

The cloth, woven of expanded GRAFLEX yarns, is soft, resilient and resistant to high temperature. It is an ideal substitute of asbestos fabrics for fire proof of flame insulation.

SERVICE					
• -Max. Temperature	Non-oxidation	: 1,650 °C	-Max. Pressure	VALVE	: 458Kg _f /cm ²
	Steam	: 650 °C		-pH Range		: 0~14
	Oxidation	: 450 °C			
	Cryogenics	: -204 °C			

LUBRICATED G.F.O® FIBER ARAMID FIBER COMBINATION PACKING



K /# 802

G.F.O® Fiber yarns consisting P.T.F.E & ARAMID fiber yarns impregnated with P.T.F.E dispersion & special lubricants on the corners are braided in combination. Excellent heat-resistant, chemical resistant & low - coefficient of friction by self - lubricating.

SERVICE					
• -Max. Temperature		: -200~280 °c	-Max. Pressure	VALVE	: 250Kg _f /cm ²
				PUMPS	: 20Kg _f /cm ²
				-pH Range	: 2~12

ARAMID FIBER BRAIDED PACKING



K /# 803

Aramid fibers impregnated with T.F.E. dispersion and treated with a special heat resistant lubricating oil, are braided into square cross sections. It's outstanding tensile strength and malleability contribute to its long life

SERVICE					
• -Max. Temperature		: -100~280 °c	-Max. Pressure	VALVE	: 220Kg _f /cm ²
				PUMPS	: 30Kg _f /cm ²
				-pH Range	: 2~12

SELECTION GUIDE OF PACKING

PRODUCT NO.	PACKING NAME	MAX. TEMP[°C]	MAX. PRESS. [Kg/cm ²]		pH Range [mm]
			VALVES	PUMPS	
K# 601 - W	INCONEL WIRE REINFORCED PURE GRAFLEX FIBER BRAIDED PACKING	1,650	600	35	0~14
K# 601 - M	INCONEL YOKE MESH REINFORCED PURE GRAFLEX FIBER BRAIDED PACKING	1,650	600	35	0~14
K# 601	PURE GRAFLEX FIBER BRAIDED PACKING	1,650	275	35	0~14
K# 602	LUBRICATED P.T.F.E IMPREGNATED CARBON FIBER BRAIDED PACKING	650	300	35	0~14
K# 603	P.T.F.E IMPREGNATED CARBON FIBER BRAIDED PACKING	600	250	35	0~14
K# 604	LUBRICATED P.T.F.E IMPREGNATED CARBONIZED FIBER BRAIDED PACKING	200	200	50	2~12
K# 605	P.T.F.E IMPREGNATED CARBONIZED FIBER BRAIDED PACKING	200	250	50	2~12
K# 701	PURE P.T.F.E FIBER BRAIDED PACKING(DRY TYPE)	260	200	10	0~14
K# 702	LUBRICATED P.T.F.E IMPREGNATED P.T.F.E FIBER BRAIDED PACKING(WET TYPE)	280	200	20	0~14
K# 703	G.F.O [®] FIBER BRAIDED PACKING	280	500	20	0~14
K# 704	EXPANDED P.T.F.E SOFT SEALANT	290	200	-	0~14
K# 801	EXPANDED GRAFLEX CLOTHS	1,650	458	-	0~14
K# 802	LUBRICATED G.F.O [®] FIBER & ARAMID FIBER COMBINATION PACKING	280	250	20	2~12
K# 803	ARAMID FIBER BRAIDED PACKING	280	220	30	2~12

STANDARD PACKING SIZE

SQ 'A'	Square Size (mm)															
	3.2	4.8	5.6	6.4	7.9	9.5	11.1	12.7	14.2	15	16	19.1	20.5	22	25.4	

