

STUFFING BOX PACKINGS.

DESCRIPTION

Stuffing box packings are proven sealing solutions for use in pumps, agitators, and for spindle gaskets in regulating and control valves. Stuffing box packings are manufactured from yarns in braiding machines using various braiding types depending on dimension and packing type.

The materials used consist of organic natural fibers, organic synthetic fibers, or inorganic synthetic fibers, including: Aramid, PTFE, ramie, novoloid, panox, polyacrylic, glass, aluminium silicate, carbon, pure graphite foil, and PTFE compounds. Depending on type and area of application, packings can additionally be manufactured with lubricants, fillers, and binding agents.

Important to note for installation:

- Only use packings that match the relevant stuffing box dimensions
- Remove residues of old packings, and carefully clean the stuffing box
- The surface must be free of scoring and traces of rust
- The gap between shaft and housing or spectacle must be < 0.2 mm. For greater gaps, extrusion-resistant packings or O-rings must be used
- Do not try to hammer packings to size
- Use appropriate mounting and removal tools

PRODUCT RANGE

Bulk goods in cartons

1 kg: 3-7 mm vkt.

2 kg: 8-11 mm vkt.

3.5 kg: 12-14 mm vkt.

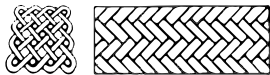

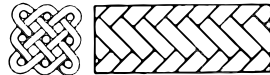



5 kg: 15-19 mm vkt.

10 kg: from 20 mm vkt.

Ready to install, form-pressed packing rings according to size

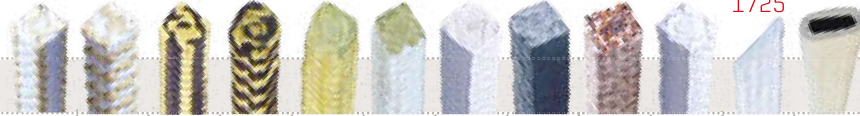
TA LUFT PACKING SETS

Valves are the most common components in plant construction. The stuffing box packing, which seals the spindle passage in the valve housing ensures high operational reliability. That is why packings for the stuffing box space, spindle, gap, and the packing dimensions have to comply with specific requirements and special care. There are specific installation and commissioning instructions for TA Luft packing sets to achieve the leakage rates required by TA Luft 2002 [VDI 2440/2220], which we can provide on request.

BRAIDING TYPES		
	4-diagonal braiding Trapezoid cross-section	<ul style="list-style-type: none"> • Low friction heat • Optimised force distribution • Low wear on packing and shaft
	2-diagonal braiding [plait]	<ul style="list-style-type: none"> • Large surface • Good elasticity
	3-diagonal braiding	<ul style="list-style-type: none"> • Good cross-sectional stability • Dense braiding structure
	4-diagonal braiding	<ul style="list-style-type: none"> • Very dense braiding structure • Smooth surface • High cross-sectional stability
	concentric, single or multi-braiding around core	<ul style="list-style-type: none"> • Dense surface
	pressed rings made of pure graphite foil	<ul style="list-style-type: none"> • High cross-sectional density • Very good pressure, temperature, and chemical resistance

CUSTOM PACKINGS.

2224 2225 2226 2229 2722 2750 2755 2760 2785 1783 1724/1725 1526



PROPERTIES

Material structure	PTFE-Aramid	PTFE-Aramid	PTFE-Aramid	PTFE-Aramid	Aramid	Aramid-stackable	Ramie	Panox	Kynol	Poly-acrylic	PTFE	PTFE/FPM
Waterproofing	PTFE	PTFE	PTFE	PTFE	PTFE	PTFE	PTFE	PTFE/Graphite	PTFE	PTFE	PTFE	PTFE
Lubricant [*silicon-free]	yes	yes	yes	yes	yes	yes*	yes*	yes*	yes*	yes*	no/yes*	no
Density approx. [g/cm³]	1,6	1,5	1,5	1,6	1,4	1,1	1,2	1,4	1,4	1,5	1,7	1,6

AREAS OF APPLICATION

Temperature	-100 °C to 280 °C	-100 °C to 280 °C	-100 °C to 280 °C	-100 °C to 280 °C	-100 °C to 280 °C	-100 °C to 250 °C	-150 °C to 200 °C	-150 °C to 140 °C	-50 °C to 250 °C	-50 °C to 140 °C	-100 °C to 280 °C	-40 °C to 180 °C
pH	1-13	1-13	1-13	1-13	1-13	1-13	5-14	4-10	1-14	1-13	0-14	0-14
Pressure [p] / Speed [Vg]												
Impeller pump [bar/m/s]	500/2	20/15	500/3	25/25	50/20	25/20	20/20	20/25	20/15	50/25		
Piston pump [bar/m/s]	100/2	200/5	100/3	100/5	100/1,5	100/2	100/2			50/2		
Valves [bar/m/s]		100/2		200/2		100/2	100/2			50/2		
Static [bar]											10	10

APPLICATIONS

Lacquers, paints [silicon-free]	x	x	x	x	x	■	o	o	■	o	■	■
Abrasive and sticky media	■	■	■	■	■	■	o	x	o	x	o	■
Water, waste water, sea water	■	■	■	■	■	■	■	■	■	■	■	■
Hot water, boiler feed water	■	o	■	■	■	■	x	■	■	o	■	■
Vapours, sour gases, nitrogen	o	o	■	■	o	x	x	o	■	o	■	■
Oxygen**	x	x	x	x	x	x	x	x	x	x	x	x
Mineral oils, animal fats	■	■	■	■	■	■	■	■	■	■	■	■
Heat transfer oils, synthetic oils	o	o	o	o	o	o	■	o	■	o	■	■
Alkalis, diluted, saline solutions	■	■	■	■	■	■	■	o	■	o	■	■
Alkalis, concentrated	x	x	x	x	x	x	x	x	■	x	■	■
Inorganic acids, diluted, saline solutions	■	■	■	■	■	■	x	o	■	o	■	■
Inorganic acids, concentrated	x	x	o	o	x	x	x	x	o	x	■	■
Solvents, other organic compounds	o	o	o	o	o	o	o	o	■	o	■	■

** For additional information, please contact the manufacturer

PTFE PACKINGS.

	1737	2724	2725	2726	2727	2728	2729	2730	2719
PROPERTIES									
Material structure	ePTFE	PTFE	PTFE	PTFE-Graphit	PTFE-Extrud.	PTFE-Extrud.	PTFE-Graphit	PTFE	PTFE-Graphit
Waterproofing	PTFE	PTFE	PTFE		Graphit		PTFE	PTFE	PTFE
Lubricant [*silicon-free]	yes	no	yes*	nein	yes	yes	yes	no	yes*
Density approx. [g/cm ³]	1,6	1,7	1,7	1,4	1,9	1,9	1,6	1,4	1,6
AREAS OF APPLICATION									
Temperature	-240 °C to 280 °C	-200 °C to 280 °C	-100 °C to 280 °C	-200 °C to 280 °C	-100 °C to 250 °C	-100 °C to 250 °C	-100 °C to 280 °C	-100 °C to 280 °C	-100 °C to 280 °C
Steam									
pH	0-14	0-14	0-14	0-14	0-14	0-14	0-14	0-14	0-14
Pressure [p] / Speed [Vg]									
Impeller pump [bar/m/s]	25/20	25/2	10/10	40/10	5/10	5/10	25/25		25/25
Piston pump [bar/m/s]	100/2	500/2	150/2	500/3			250/2		250/2
Valves [bar/m/s]	100/2	500/2	100/2	500/3			100/2	100/2	100/2
APPLICATIONS									
Lacquers, paints [silicon-free]	x	■	■	■	o	o	x	■	■
Abrasive and sticky media	o	x	x	x	x	x	o	x	x
Water, waste water, sea water	■	■	■	■	■	■	■	■	■
Hot water, boiler feed water	■	■	■	■	■	■	■	■	■
Vapours, sour gases, nitrogen	■	■	■	■	■	■	■	■	■
Oxygen**	x	■	x	x	x	x	x	x	x
Mineral oils, animal fats	■	■	■	■	■	■	■	■	■
Heat transfer oils, synthetic oils	■	■	■	■	■	■	■	■	■
Alkalis, diluted, saline solutions	■	■	■	■	■	■	■	■	■
Alkalis, concentrated	■	■	■	■	■	■	o	■	o
Inorganic acids, diluted, saline solutions	■	■	■	■	■	■	■	■	■
Inorganic acids, concentrated	■	■	■	■	■	■	■	■	■
Solvents, other organic compounds	■	■	■	■	■	■	■	■	■
CERTIFICATIONS									
	FDA	BAM/FDA for 2724F	FDA for 2725F	BAM FMFA					FMPA

GRAPHITE & CARBON PACKINGS.

	1395	1372	1372P	1372K	1373	1380/90	1385	1377	1375
PROPERTIES									
Material structure	exp. pure graphite foil braid. Inc.	exp. pure graphite foil braid. Inc.	Pure graphite foil	Graphite foil	exp. pure graphite foil braid. Inc.	exp. pure graphite foil pressed	Graphite	Carbon	Carbon
Waterproofing			PTFE				Graphite	Graphite	Graphite
SLubricant [*silicon-free]	no	no	yes	no	no	no	no	no	yes*
Density approx. [g/cm³]	1,4	1,2	1,4	1,2	1,2	1,2-1,8	1,0	1,0	1,2
AREAS OF APPLICATION									
Temperature	-60 °C to 550 °C	-60 °C to 550 °C	-100 °C to 300 °C	-60 °C to 500 °C	-60 °C to 500 °C	-200 °C to 550 °C	-60 °C to 500 °C	-60 °C to 400 °C	-60 °C to 400 °C
Steam	+600 °C	+550 °C		+550 °C	+600 °C	+600 °C	+550 °C	+500 °C	+500 °C
pH	0-14	0-14	0-14	0-14	0-14	0-14	2-12	2-12	0-14
Pressure [p] / Speed [Vg]									
Impeller pump [bar/m/s]]			60/50						20/25
Piston pump [bar/m/s]				50/8					
Valves [bar/m/s]	500/2	300/2	150/2	350/2	400/2	300/2	150/2	150/2	100/2
APPLICATIONS									
Lacquers, paints [silicon-free]	o	o	o	o	o	o	o	o	o
Abrasive and sticky media	x	x	x	x	x	x	x	x	x
Water, waste water, sea water	■	■	■	■	■	■	■	o	■
Hot water, boiler feed water	■	■	■	■	■	■	■	■	o
Vapours, sour gases, nitrogen	■	■	■	■	■	■	o	o	■
Oxygen**	x	x	x	x	x	■	x	x	x
Mineral oils, animal fats	■	■	■	■	■	■	■	■	■
Heat transfer oils, synthetic oils	■	■	■	■	■	■	■	■	■
Alkalis, diluted, saline solutions	■	■	■	■	■	■	o	o	o
Alkalis, concentrated	o	o	o	o	o	■	x	x	x
Inorganic acids, diluted, saline solutions	■	■	■	■	■	■	o	o	o
Inorganic acids, concentrated	o	o	o	o	o	o	x	x	x
Solvents, other organic compounds	o	o	o	o	o	o	o	o	o
CERTIFICATIONS									
	BAM					BAM for 1390 DVGW KTW			

TA LUFT PACKING SETS.

Product designation	UNIGRAF® TA Luft Packing Set	UNIGRAF® TA Luft Packing Set
Product Name	1374	1339
Product image		
Features	Valve packing made of braided, patented graphite-combination fiber for low leakage rates based on an excellent cross-sectional density at various temperature cycles with low extrusion and low cold flow tendency and very low friction values.	UNIGRAF® 1339 is a universal graphite packing set, which in its special combination complies with VDI standards 2440/2200 even without disk springs.
OPERATING DATA		
Temperature	-200 °C to 400 °C	-200 °C to 400 °C
pH	0-14	0-14
Pressure	300/2	300/2
CERTIFICATIONS		
TA Luft 2002 [VDI 2440/2200]	40 bar	25 bar
TA Luft test procedure	Test without disk springs, at 400 °C, 40 bar, and 1000 spindle movements. The limit value was underrun.	Test without disk springs, at 400 °C, 25 bar, and 1000 spindle movements.
Areas of Application	Valves application in chemical and petro-chemical industries, process technology, refineries, and in all standard valves	Valves application in chemical and petro-chemical industries, process technology, refineries, and in all standard valves
Product Range	Ready to install, form-pressed packing rings according to size as complete packing sets	Ready to install, form-pressed packing rings according to size

Product designation	UNIFLUOR® TA Luft Packing Set	UNIFLUOR® TA Luft Packing Set
Product Name	2724F	2724FS
Product image		
Features	Valve packing made of high-tensile, white PTFE filament yarns in combination with a dense cross-section custom waterproofing for low leakage rates, extrusion and pressure resistance, and a reduced cold flow tendency at very low friction values.	UNIFLUOR® 2724FS is a universal PTFE packing set, which complies with VDI standards 2440/2200 due to its special combination even without disk springs.
OPERATING DATA		
Temperature	-200 °C to 280 °C	-200 °C to 280 °C
pH	0-14	0-14
Pressure	250/2	250/2
CERTIFICATIONS		
TA Luft 2002 [VDI 2440/2200]	40 bar	40 bar
TA Luft test procedure	Test without disk springs, at 250 °C, 40 bar, and 2500 spindle movements. The limit value was underrun.	Test without disk springs, at 200 °C, 40 bar, and 5000 spindle movements.
Areas of Application	Valves application in chemical and petrochemical industries, process technology, refineries, and in all standard valves	The sealing set is suitable for the outfitting of new and the retrofitting of existing valves in the chemical and petrochemical industry, process technology, and refineries.
Product Range	Ready to install, form-pressed packing rings according to size as complete packing sets	Ready to install, form-pressed packing rings according to size