

Graphite packings

Expanded graphite is one of the best materials for manufacturing dynamic sealings. Its heat resistance ranges from - 200 °C to + 2000 °C. Unfortunately its heat resistance decreases in the effect of air, steam and other oxidants. It is therefore assumed that good brands of expanded graphite can be used in the air up to 450 °C, in dynamic applications up to 550 °C, and in static applications, e.g. in valves, up to 600 °C.

Expanded graphite features very good chemical resistance to practically all media, with the exception of strong oxidants; good thermal conductivity and low friction coefficient for steel.

PACKING TYPE 605



Characteristics:

Packing made of expanded pure graphite yarn with a cotton core. Due to its thermal and chemical resistance, self-lubricating properties and good thermal conductivity, the expanded graphite is perfect for high temperature braided packings used in both rotodynamic pumps and in fittings. Replacement of inconel reinforcement with cotton thread reduces mechanical parameters at high temperature but thanks to that the packing sets itself more softly inside the stuffing box and its friction coefficient is lower.

Application:

Recommended for use in stuffing boxes of pumps and fittings at temperatures up to $450\,^{\circ}$ C, with water, steam, oils, solvents, salts, acids and alkalis, with exception of strong oxidants. Not recommended for use with liquid metals and abrasive media.

Particularly recommended for use in rotodynamic pumps, where PTFE cannot be used due to temperature limitations.

рН	Max. temp.	Rotodynamic pumps	Piston pumps	Fittings	Dimension range
0-14	-200 ÷ 450 °C, in steam up to 550 °C, in oxygen-free atmosphere up to 2000 °C	p = 40 bar v = 40 m/s	not recommended	p = 200 bar v = 2 m/s	6-25 mm

All information in this catalogue is based on years of experience in manufacture and use of the discussed products.

Since sealing performance in the joint is subject to multiple factors such as mounting method, system parameters, and sealed medium, technical parameters specified herein are of informative nature only and cannot be used as grounds for any claims;

any special uses of products are subject to consulting with the manufacturer.

BRAIDED PACKINGS



PACKING TYPE 6051



Characteristics:

Packing of expanded pure graphite yarn reinforced with a thin inconel wire. Due to its thermal and chemical resistance, self-lubricating properties and good thermal conductivity, the expanded graphite is perfect for high temperature braided packings. Use of reinforcement a with thin inconel wire improves mechanical strength of the packing, while preventing it from entering into the gap between a shaft or a spindle and an enclosure of the stuffing box.

Application:

Recommended for use in stuffing boxes of pumps and fittings at extremely high temperatures, with water, steam, oils, solvents, salts, acids and alkalis, with exception of strong oxidants. Not recommended for use with liquid metals, e.g. iron, and abrasive media.

Particularly popular in professional power generation sector.

рН	Max. temp.	Rotodynamic pumps	Piston pumps	Fittings	Dimension range
0-14	-200 ÷ +600 °C, in oxygen-free atmosphere up to 2000 °C	not recommended	not recommended	p = 320 bar v = 2 m/s	6-25 mm

PACKING TYPE 6055



Characteristics:

Packing of expanded pure graphite yarn reinforced with thin inconel wire, with each single thread over-braided with inconel mesh. Due to its thermal and chemical resistance, self-lubricating properties and good thermal conductivity, expanded graphite is perfect for high temperature braided packings used in both rotodynamic pumps and in fittings. Use of reinforcement with dense inconel plait improves mechanical strength of the packing, while preventing it from entering into the gap between the shaft or the spindle and the stuffing box enclosure. This permits using the packing at extremely high pressure conditions. This type contains inhibitors of corrosion.

Application:

Recommended for use in stuffing boxes of fittings at extremely high temperatures and pressures, with water, steam, oils, solvents, salts, acids and alkalis, with exception of strong oxidants. Not recommended for use with liquid metals, e.g. iron, and abrasive media.

Particularly popular in professional power generation sector.

рН	Max. temp.	Rotodynamic pumps	Piston pumps	Fittings	Dimension range
0-14	-200 ÷ +600 °C, in oxygen-free atmosphere up to 2000 °C	not recommended	not recommended	p = 600 bar v = 1,5 m/s	6-25 mm



PACKING TYPE 645



Characteristics:

Packing of expanded pure graphite yarn with cotton core, additionally impregnated with PTFE. Due to its thermal and chemical resistance, self-lubricating properties and good thermal conductivity, expanded graphite is perfect for high temperature braided packings used in both rotodynamic pumps and in fittings. Addition of PTFE reduces permissible working temperature but it improves friction coefficient and improves cohesion, which facilitates mounting in stuffing boxes of pumps.

Application:

Recommended for use in stuffing boxes of pumps and fittings at temperatures up to 280 °C, with water, steam, oils, solvents, salts, acids and alkalis, with exception of strong oxidants. Not recommended for use with abrasive media.

рН	Max. temp.	Rotodynamic pumps	Piston pumps	Fittings	Dimension range
0-14	-200÷+280°C	p = 25 bar v = 25 m/s	not recommended	p = 100 bar v = 2 m/s	6-25 mm

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