

# Supagraf®

## 100FXI CS

### Ultra-low emission combination packing set



**Supagraf® 100FXI CS is the first packing qualified to API 622, Annex C (HT), 2022 and ensures ultra-low emissions performance even at high temperatures combined with zero corrosion and virtually zero friction.**

**End rings:** Braided high-purity packing made from expanded graphite inconel wire mesh jacketed yarn for high strength and extrusion resistance with excellent sealability. The packing is impregnated with a high temperature resistant, proprietary emulsion to ensure ultra-low friction.

These rings conform to Shell material specification MESC SPE 85/204.

**Intermediate rings:** Special moulded rings of high purity graphite foil, that offer low friction and excellent heat transfer characteristics, plus high efficiency sealing.

These rings conform to Shell material specification MESC SPE 85/203.

#### Prime features

- First packing qualified to API 622, Annex C (HT) 2022 requirement - Yarmouth Research and Technology, USA.
- Unrivalled low emissions: 10 to 12 ppm maximum leakage across the size over 1510 cycles with no adjustments.
- Certified Fire Safe to API 607 8th edition with zero leakage during and after fire.
- Zero corrosion in both ambient and high temperature operation under API 622 testing.
- Ultra-low friction even at high endurance. (Tested friction factor: 0.1)
- All materials are PFAS surfactant free.
- Extremely low oxidation loss.

#### Typical applications

Stop valves and control valves performing arduous duties with media such as hydrocarbon liquid fuels and gases. Applications requiring VOC fugitive emission control to 100ppm or better, with a maximum working temperature of up to +538°C (+1000°F).

#### Chemical properties

Compatible with media in the range pH 0-14, excluding strong oxidising agents.

#### How supplied

As precision moulded rings in endless form, or with single split, to meet customers' requirements. Sections: 3 mm to 40 mm ( $1/8"$  to  $1\ 9/16"$ ). Diameters: 5 mm to 500 mm ( $3/16"$  to  $19\ 3/4"$  ID).



#### VALVE STEM DUTIES

**Maximum Operating Temperature:**

+538°C (+1000°F)

**Minimum Operating Temperature:**

-196°C (-320°F)

**Maximum System Pressure:**

30 MPa/300 bar (4350 psi)

#### APPROVALS

Shell MESC SPE 85/203

Shell MESC SPE 85/204

Shell MESC 77/312

API 624 2nd edition Annex-D (HT)

API 641 2nd edition Annex-C (HT)

API 622 3rd edition Annex C (HT)

API 607 8th edition Fire Safe

ISO 15848-FE-AH-CO1-SSA0-t (RT to 400°C)

ISO 15848-FE-AH-CO2-SSA1-t (RT to 400°C)

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**Health warning:** If PTFE products are heated to elevated temperatures, fumes will be produced which may give unpleasant effects, if inhaled. Whilst some fumes are emitted below 300°C (572°F) from PTFE, the effect at these temperatures is negligible. Care should be taken to avoid contaminating tobacco with particles of PTFE or PTFE dispersion, which may remain on hands or clothing. Safety Data Sheets (SDS) are available on request.

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