

# Supagraf<sup>®</sup>

## FE

## New generation fugitive emissions control packing

### Supagraf<sup>®</sup> FE is a high performance fugitive emission control packing for valves.

Third party tested to all known industry standards producing exceptional performance – 8ppmV average emission level in API 622 3rd edition test with no adjustments. This is a cost effective fully braided packing manufactured in exfoliated high purity 98% graphite, reinforced with Inconel<sup>®</sup> wire to provide additional strength and resistance to pressure and extrusion.

This packing incorporates a new generation cutting-edge lubrication system that not only helps to prevent the pick-up of graphite on valve stems but also provides ultra-low friction performance with advanced corrosion inhibiting properties.

#### Prime features

- Third party verified emission control performance.
- Suitable for both rotary as well as rising-stem valve application.
- Ultra-low friction performance without graphite pick-up reducing the torque needed for efficient valve action.
- Fire safe capability confirmed by third-party certification according to API 607 Edition 7 Fire Safety / ISO 10497:2010
- Suitable for use in valves from pressure Class 150 up to Class 1500 - please consult JW technical for Class 2500 suitability
- Can mitigate the effects of stem judder and friction by helping to prevent graphite pickup or high spot friction on the valve stem, especially in applications with high rates of thermal cycling and dynamic stem movements.

#### Typical applications

Supagraf FE is designed for harsh operating conditions where fugitive emissions from valves need to be reduced to well below 100 ppm. Suitable for all types of valves performing arduous duties handling fluid media such as hydrocarbon liquid fuels and gases, lubricating oils and processing chemicals. Also suitable for valves that handle dry gases and other fluids.

#### Specifications

Supagraf<sup>®</sup> FE is third-party tested and certified to:

- ISO 15848-1:2015 Class BH (CO1) achieved on DN100 gate valve Class 300 with rising stem at test temperature from ambient up to 200°C.
- API 622 3rd Edition. Average emission level of 8ppmV over five thermal cycles and 1510 mechanical cycles and with no adjustment made.
- TA Luft / VDI 2440 Rev. 07.2002.
- Shell specification SPE 77/312 Class AH Rev. 02.2019.
- API 607 Edition 7 Fire Safety / ISO 10497:2010.
- Conforms to Shell material specification MESC SPE 85/204.

#### Chemical properties

Compatible with media in the range pH 1-14, excluding strong oxidising agents. It has negligible volatile content.

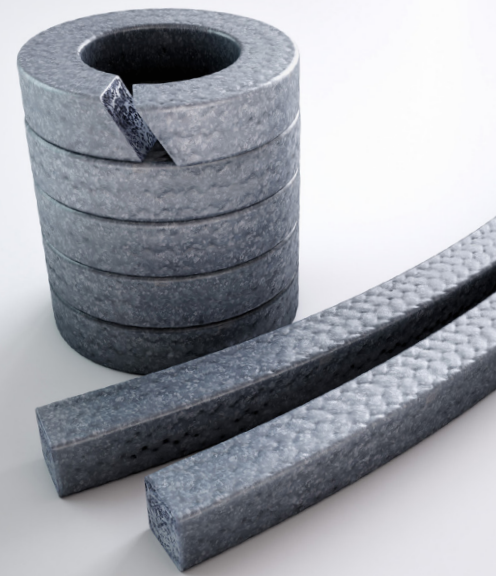
#### How supplied

All popular square sections from 3 mm (1/8") upwards in boxes containing 8 m (26' 3"), in coil form or on spools as detailed in the table below. Also supplied as split preformed rings and sets. Non-standard square or rectangular sections made to order.

Spool ordering information			
Size		Packaged ± 10%	
mm	inch	kg	lbs
3.0	1/8	0.9	2
5.0	3/16	0.9	2
6.5	1/4	0.9	2
8.0	5/16	0.9	2
10.0	-	2.3	5
11.0	7/16	2.3	5
12.5	1/2	2.3	5
14.0	9/16	2.3	5
16.0	5/8	4.5	10
20.0	13/16	4.5	10
22.0	7/8	4.5	10
25.0	1	4.5	10

#### Notes:

\*Consult James Walker for higher pressures.



#### VALVE STEM DUTIES

**Maximum Operating Temperature:  
Oxidising conditions**

+450°C (+842°F)

**Minimum Operating Temperature:**

-200°C (-328°F)

**Maximum System Pressure (standard)\*:**

25 MPa/250 bar (3626 psi)

#### APPROVALS



ISO 15848-1:2015 Class BH (CO1)

API 622 3rd Edition

TA Luft VDI 2440 Rev. 07.2002

Shell MESC SPE 85/204

Shell specification

SPE 77/312 Class AH Rev. 02.2019

API 607 Edition 7 Fire Safety

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