



# Klinger 4322

**A packing based on graphite enhanced PTFE. Allowing effective, long lasting sealing in both valves and high-speed pumps.**

*K4322 is only one of the Klinger TopLine range of compression packings.*

*This is an optimised range introduced to provide users with gland sealing products that meet today's demanding services, offering effective and trouble-free sealing during application. To achieve this goal we have selected the best materials and the best production methods. The result is the Klinger TopLine packing range.*

*Ongoing Test & Development in line with Klinger philosophy will ensure the continued improvement of all TopLine products.*

- Klinger 4322 packing is manufactured from PTFE filaments, which have been pre-treated with a graphite based lubricant.
- The Klingerlock braiding process is used.
- PTFE is extremely resistant to a wide range of chemicals, K4322 is therefore only affected by very strong oxidising media such as molten alkali metals.
- (please contact Klinger for further advice)
- It is the graphite treatment which allows the rapid dispersion of heat thus enabling the packing to operate in high speed dynamic applications where pure PTFE packings are not normally effective. It is equally effective in valve applications.
- Due to its wide service capabilities K4322 TopLine packing offers the user a packing material with excellent sealing life and the option of reducing the variety of packings that must be held as stock.



aerospace  
sector  
certification  
scheme

BS EN 9100:2003, ISO 9001:2008  
Certificate no: FM 10571

**Head Office**  
**KLINGER Ltd**  
Wharfedale Road  
Euroway Trading Estate  
Bradford BD4 6SG

Tel: 01274 688 222  
Fax: 01274 688 549

# TopLine Packing 4322

## Service Capabilities

*When used in equipment in good mechanical condition and installed using our product guidelines the undernoted values apply:*

- *Minimum operating Temperature*    **-240°C**
- *Maximum operating temperature*    **280°C**
- *Maximum steam temperature*        **280°C**
- *pH*    **0-14**
- *Maximum static pressure*            **300 bar**
- *Maximum dynamic pressure*        **25 bar**
- *Maximum Speed*                        **22 m/s**

**Note:** *The packing should not be subjected to the maximums of temperature, pressure and speed simultaneously, for further advice please contact our technical department.*

## Forms of Supply

*Klinger packings are offered in a range of standardised packages:*

*Size:*  
**3mm to 25mm**

*Length:*  
**8 metres per box**

*by weight:*  
**sizes under 9.5mm    1kg/box**  
**9.5mm to 12.5mm    2kg/box**  
**sizes over 12.5mm    4kg/box**

*Alternative lengths and weights can be offered upon request, please contact Klinger for further details.*

***Klinger 4322 is suitable for use as a general valve and pump packing within many industries, for example;***

- *Chemical Plant & Chemical processing*
- *Power Stations*
- *Breweries/Distilleries*
- *Refineries*
- *Boiler Houses*
- *Pulp & Paper Mills*
- *Mines/Quarries*

## Technical Advice

*If you require additional technical information or would like Klinger to advise you on a particular application, then contact our Technical Department at the address shown.*

*It is advantageous to provide the following details:*

1. *Type of valve or pump*
2. *Working and test pressure*
3. *Temperature - steady or cycling*
4. *Rate of pressure & temperature increase*
5. *Medium and concentration*
6. *Operating speed*
7. *Special requirements*
8. *Details of stuffing box design*