



# Klinger 4333

A universal packing, using lubricated polyimide filaments to produce a TopLine grade able to perform reliably in a wide range of services and equipment.

Klinger 4333 is one of the Klinger TopLine range of compression packings.

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

Ongoing test and development in line with the Klinger philosophy will ensure the continued improvement of the TopLine products.

- The base yarn of Klinger 4333 is composed of synthetic polyimide filaments which have excellent mechanical properties in terms of overall strength and elongation.
- It is manufactured by the Klingerlock braiding process, during which we add an additional PTFE based lubricant. This enhances the packings performance in dynamic applications.
- The polyimide base structure of K4333 ensures the packing has excellent temperature resistance.
  Normally low gland loads will achieve a satisfactory seal.

- K4333 has a wide tolerance to chemical media (pH 0-13) and is particularly suited to acid applications where control of leakage is of importance and PTFE types lack the required mechanical strength to affect an efficient seal.
- Where shaft wear is a problem, K4333 can be employed as a good alternative to aramid based packings. In practice it significantly reduces wear rates when compared to many other packing types.







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 4333

#### Service Capabilities

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

Minimum operating Temperature -80°C

Maximum operating temperature 260°C

Maximum steam temperature 260°C

■ pH **0-13** 

Maximum static pressure 200 bar

Maximum rotary pressure 50 bar

Maximum running speed 15 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 4333 is suitable for use as a general valve and pump packing within many industries, for example;

- Petrochemical Plants
- Chemical Processing
- Power Stations
- Pulp & Paper Mills
- Refineries
- Quarries & Mines

### **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