

# HY534

## Piston rod packing

HY534 is a premium PEEK based material especially suitable for high pressure and high temperature lubricated applications. The material has high resistance to a wide variety of chemicals, and has been applied successfully in gases such as hydrogen, ammonia, synthesis gas, carbon dioxide and ethylene showing outstanding results. This grade continues to enjoy worldwide success in reciprocating compressors.

### Physical Properties

Property	Method	Value
COTE - Radial x 10-6/C (20-200 °C)	ASTM D696	31
COTE - Axial x 10-6/C (20-200 °C)	ASTM D696	32
Density (g/cm3) ASTM D792	ASTM D792	1.45
Shore D Hardness ASTM D2240	ASTM D2240	83
Tensile strength at break (MPa)	ASTM D638	55
Elongation at break (%)	ASTM D638	3.3

Air

Industrial Gases

Natural Gas

Refinery

Olefins

Alcohols

Chemicals

Refrigeration

### Operating range

Max. Gas Temperature (°C)		Max. Pressure (bar)			
Discharge	Design	Packing Discharge		Cylinder Ring Diff.	
		Non-Lube	Lube	Non-Lube	Lube
250	195	300(#)	450	#	250

Operating restriction for oxygen-service: Compression ratio up to 3 and max. temperature 225°C

All values are approximate and subject to change without notification.

The maximum material design temperature is calculated by considering suction and discharge conditions, machine speed, cooling and loading. Typically:  $T_{\text{design}} = T_{\text{suction}} + 2/3(T_{\text{discharge}} - T_{\text{suction}})$ . Additional operating conditions need to be considered when making material selections. The data presented are guidelines only; consult HOERBIGER to ensure the correct material is specified.

**HOERBIGER.COM**

All rights reserved. Subject to change without notice © Copyright HOERBIGER 2023

