HY101

Piston rod packing, non-lubricated applications

HY101 is a high performance filled PTFE alloy. Successful applications include isobutane, methane, propylene, hydrogen, and carbon dioxide environments. This grade excels in dry, non lubricated environments while exhibiting negligible deformation under load. HY101 is ideal for piston rod packing rings, it can be employed at high pressures without the need for antiextrusion rings.

Physical Properties

Property	Method	Value
COTE - Radial x 10-6/C (20-200 °C)	ASTM D696	65.7
COTE - Axial x 10-6/C (20-200 °C)	ASTM D696	85.7
Density (g/cm3)	ASTM D792	1.87
Shore D Hardness	ASTM D2240	66
Tensile strength at break (MPa)	ASTM D638	13
Elongation at break (%)	ASTM D638	2.8

Operating range

Max. Gas Temperature (°C)		Max. Pressure (bar)			
Discharge	Design	Packing Discharge		Cylinder Ring Diff.	
		Non-Lube	Lube	Non-Lube	Lube
210	160	150	350	60	150

Operating restriction for oxygen-service: Compression ratio up to 3

- Air
- Industrial Gases
- Natural Gas
- Refinery
- Olefins
- Alcohols
- Chemicals
- Refrigeration

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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: Tdesign = Tsuction + 2/3(Tdischarge – Tsuction). 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.

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