

# HY29

HY29 is glass fiber filled PTFE material. Proven successful in compressor applications, it is the recommended grade for carbon monoxide applications, and is BAM (Bundesanstalt für Materialforschung und –prüfung) certified for use in oxygen gas applications. HY29 is a filled PTFE alloy with chemical inertness except for molten alkali metals and hydrogen fluoride gas, and is unique amongst traditional filled PTFE's in its white color.

## Physical Properties

Property	Method	Value
COTE - Radial x 10 <sup>-6</sup> /C (20-200 °C)	ASTM D696	65.8
COTE - Axial x 10 <sup>-6</sup> /C (20-200 °C)	ASTM D696	75.8
Density (g/cm <sup>3</sup> )	ASTM D792	2.25
Shore D Hardness	ASTM D2240	58
Tensile strength at break (MPa)	ASTM D638	22
Elongation at break (%)	ASTM D638	238

## Operating range

Max. Gas Temperature (°C)		Max. Pressure (bar)			
Discharge	Design	Packing Discharge		Cylinder Ring Diff.	
		Non-Lube	Lube	Non-Lube	Lube
200	150	75	-	40	-

## Operating limits in oxygen service

Max. Temperature (°C)	Max. Oxygen Pressure (bar)	Compression Ratio
175	100	≤3

Tested according to DIN EN 1797 and ISO 21010

Air

Industrial Gases

Natural Gas

Refinery

Olefins

Alcohols

Chemicals

Refrigeration

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:  $T_{design} = T_{suction} + 2/3(T_{discharge} - T_{suction})$ . 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.

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