

HY121

HY121 offers the advantages of a low friction material with excellent wear resistance at very low dew points. The material has a high modulus and strength and low thermal expansion, giving good creep resistance at high temperatures and loads. HY121 is typically used in bone dry applications such as air separation, technical gases, storage, boil-off and in cryogenic applications.

Physical Properties

Property	Method	Value
COTE - Radial x 10 ⁻⁶ /C (20-200 °C)	ASTM D696	36.9
COTE - Axial x 10 ⁻⁶ /C (20-200 °C)	ASTM D696	38.6
Density (g/cm ³)	ASTM D792	2.03
Shore D Hardness	ASTM D2240	75
Tensile strength at break (MPa)	ASTM D638	27
Elongation at break (%)	ASTM D638	0.5

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
200	150	150	-	50	-

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

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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