## HELIUM 4.5

# PROPERTIES PHYSICAL & CHEMICAL





HELIUM 4.5

Molar mass: 4.0026 g/mol

Gas density relative to air (1013 hPa/15°C):

0.138

Triple point: Temperature: 2.2 K (-271.0

°C)

Pressure: 51 mbar

Latent heat of fusion: 146.21 kg/m3

(liquid phase)

Boiling point: Temperature: 4.2 K (-268.9

°C)

(1013 hPa) Latent heat of vaporization:

20.3 kJ/kg

Density: 124.96 kg/m³ (liquid phase)

Critical point: Temperature: 5.2 K (-267.9

 $^{\circ}C)$ 

Pressure: 2.3 bar Density: 69.64 kg/m<sup>3</sup>

### **APPLICATIONS:**

In TIG and MIG welding of very thick light alloys, Helium promotes penetration speed and

wetting of the weld beads. It can be used mixed with argon in different strengths.

It is also used for leak detection, balloon inflation, certain inerting, for heat transfer in certain processes, etc.

#### **TECHNICAL INFORMATION**

Purity:	Impurities :				
Не	O <sub>2</sub>	N <sub>2</sub>	C+CO <sub>2</sub>	THC	H2O
≥ 99.995 %	≤ 5 ppm	≤ 20 ppm	≤5 ppm	≤5 ppm	≤ 5 ppm

## **Conditioning:**

Bottle
B50

