



Hydrogen 5.0

Product name	Hydrogen 5.0
Physical state	gaseous, compressed
Chemical sign	H ₂
Chemical designation	Hydrogen
Purity	99.999 %
Standard	is not subject to any standard
Properties	see safety data sheet
Shoulder color	flame red (RAL 3000)

Minor components	Maximum values
Oxygen	2 vol. ppm
Nitrogen	5 vol. ppm
Moisture	5 vol. ppm
Hydrocarbons	0.5 vol. ppm

Name	Material number	Type	Volume	Vapour/filling pressure	Content	Valve	Properties
Alumini® 70 Hydrogen 5.0	A03980702004	aluminum	1.6 l	70 bar	0.112 m ³	5/8" - 18 UNF	
Hydrogen 5.0 T50 RCyl	B09540150	steel	50 l	200 bar	8.9 m ³	NBN 226 Forme B (G Cage 1/2 left)	
Hydrogen 5.0 RBundle12	B09540312	steel	600 l	200 bar	106.8 m ³	NBN 226 Forme B (G Cage 1/2 left)	

Unless otherwise stated, these refer to filling pressure at 288,15K (15°C) and to content at 288,15K (15°C) and 0,981 bar.

Physical data		
operating figures	Molar mass	2,02 g mol ⁻¹
	Ignition Range in Air	4,0-77 Vol.-%
	Calorific Value to DIN 51850	12745 kJ m ⁻³
	Ignition Point	833 (559,9) K (°C)



Westfalen

Physical data		
Liquid State	Boiling Point	20,38 (-252,8) K (°C)
	Heat of Evaporation	454,26 kJ kg ⁻¹
	Liquid Density	71,0 kg m ⁻³
Gas State	Thermal Conductivity (at 288.15 K and 1.013 bar)	0,1779 J s ⁻¹ m ⁻¹ K ⁻¹
	Density Ratio to Air (at 288.15 K and 1.013 bar)	0,07
	Specific heat (at 298.15 K and 1.013 bar)	14,20 kJ kg ⁻¹ K ⁻¹
	Density (at 273.15 K and 1.013 bar)	0,09 kg m ⁻³
Critical Point	Temperature	33,24 (-239,9) K (°C)
	density	30,1 kg m ⁻³
	Pressure	12,98 bar
Triple Point	Temperature	14 (-259,2) K (°C)
	Vapour Pressure	0,0720 bar
	Heat of Fusion	58,2 kJ kg ⁻¹

All mentioned data, values and notes correspond to actual state of knowledge on the date of printing. They make no claim to be correct or complete and therefore do not release the user from his obligation to check them.

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