



Westfalen

Product sheet Nitrogen 5.0

Product name	Nitrogen 5.0
Physical state	gaseous, compressed
Chemical sign	N ₂
Chemical designation	Nitrogen
Purity	99,999 %
Standard	is not subject to any standard
Properties	see safety data sheet
Shoulder color	jet black (RAL 9005)

Minor components	Maximum values
Oxygen	3,0 vol. ppm
Hydrocarbons	1,0 vol. ppm
Moisture	5,0 vol. ppm

Name	Material number	Bottle type	Bottle container volume	Vapour/filling pressure	Content	Valve	Properties
Nitrogen 5.0 T10 RCyl	A00340110	steel	10,0 l	200,0 bar	1,9 m ³	DIN 477 Nr. 10 W 24,32 x 1/14	
Nitrogen 5.0 T20 RCyl	A00340120	steel	20,0 l	200,0 bar	3,8 m ³	DIN 477 Nr. 10 W 24,32 x 1/14	
Nitrogen 5.0 T50 RCyl	A00340150	steel	50,0 l	200,0 bar	9,6 m ³	DIN 477 Nr. 10 W 24,32 x 1/14	
Nitrogen 5.0 T50 RCyl 300 bar	A003401503	steel	50,0 l	300,0 bar	13,2 m ³	DIN 477-5 No. 54 null	
Nitrogen 5.0 RBundle12	A00340312	steel	600,0 l	200,0 bar	115,2 m ³	DIN 477 Nr. 10 W 24,32 x 1/14	
Nitrogen 5.0 RBundle12 300 bar	A003403123	steel	600,0 l	300,0 bar	158,4 m ³	DIN 477-5 No. 54 null	
Alumini® 70 Nitrogen 5.0	A03980702001	aluminum	1,6 l	70,0 bar	0,112 gases liter	5/8" - 18 UNF null	
Alumini 12 fly Nitrogen 5.0	A04020701SF	aluminum	1,0 l	12,0 bar	12,0 gases liter	7/16" null	



Name	Material number	Bottle type	Bottle container volume	Vapour/filling pressure	Content	Valve	Properties
Alumini 200 Nitrogen 5.0: 100 l	A04040701R	aluminum	0,5 l	200,0 bar	0,1 m ³	DIN 477 Nr. 10 W 24,32 x 1/14	

Unless otherwise stated, these refer to filling pressure at 288,15K (15°C) and to content at 288,15K (15°C) and 1,013 bar.

Typical applications

- as a laser resonator gas
- for laser cutting
- for plasma cutting
- for forming
- for inerting
- as a shield gas and reaction gas in continuous flow soldering
- as a shield gas in reflow soldering systems
- in gas chromatography
- in metrology

Physical data

operating figures	Molar mass	28,01 g mol ⁻¹
Liquid State	Heat of Evaporation	198,70 kJ kg ⁻¹
	Liquid Density	808,6 kg m ⁻³
Gas State	Thermal Conductivity (at 288.15 K and 1.013 bar)	0,0250 J s ⁻¹ m ⁻¹ K ⁻¹
	Density Ratio to Air (at 288.15 K and 1.013 bar)	0,97
	Specific heat (at 298.15 K and 1.013 bar)	1,04 kJ kg ⁻¹ K ⁻¹
	Density (at 273.15 K and 1.013 bar)	1,25 kg m ⁻³
Critical Point	Temperature	126,2 (-147,0) K (°C)
	density	314 kg m ⁻³
	Pressure	34,00 bar
Triple Point	Temperature	63,2 (-210,0) K (°C)
	Vapour Pressure	0,1253 bar
	Heat of Fusion	25,8 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.

Current state 28.11.2021