

R290 Propane

Technical Data Sheet | Refrigerant

R290 (Propane) is refrigerant grade propane, used as an alternative to R22 and R502 in low, medium and high temperature refrigeration and air conditioning applications.

Key Applications



Commercial Refrigeration



Domestic Air-Conditioning



Commercial Air-Conditioning



Industrial Air-Conditioning



Other
(Heat Pumps,
Water Heaters)

Features and Benefits

- Excellent thermodynamic properties resulting in high energy efficiency.
- Low charges allow for smaller heat exchanges and piping dimensions.
- Low GWP of 3.
- Flammable and non-toxic with a safety classification of A3.
- Compressors can be charged with a variety of oils; contact the compressor manufacturer for more information.

Physical Properties

Refrigerant Type: Hydrocarbon

Chemical Name: Propane

Molecular Weight: 44.11 g/mol

Boiling Point: -42.1°C

Critical Temperature: 96.7°C

Critical Pressure: 4.25 MPa

Density Liquid at 20°C: 0.5

ASHRAE Safety Classification: A3

Ozone Depleting Potential: 0

Global Warming Potential (AR5): 3



Pack Sizes

- 400 Grams disposable can

Usage Instructions

- Refrigerant can be charged from either the liquid or vapour phase.
- Not for use as a retrofit replacement and requires a specific R290 compressor.
- Due to its flammable nature, R290 requires different charging and recovery procedures.
- R290 adaptors are available if required.
- The 400g can is a non-returnable cylinder and does not need to be returned to an A-Gas wholesale partner. Please dispose of non-returnable cylinders in an environmentally responsible manner.

IMPORTANT: Hydrocarbon refrigerants are flammable and must be handled safely and responsibly by properly qualified, trained, and experienced technicians.
All relevant regulations and standards must be followed at all times.

Product Specifications

Properties	AHRI Standard 700-2019 Specifications
Purity, % w	≥ 99.5
Non-Condensable Gases @ 25°C, %v	≤ 1.5
Moisture, ppmw	≤ 10
Acidity (as HCl), ppmw	≤ 1
High Boiling Residue, %w	≤ 0.01
Particulates/Solids	Visually clean

Pressure Temperature Chart

Temperature °C	Pressure (kPa)
-48	-24
-46	-16
-44	-8
-42	1
-40	10
-38	20
-36	30
-34	42
-32	54
-30	67
-28	80
-26	95
-24	110
-22	126
-20	143
-18	161
-16	180
-14	200
-12	222
-10	244
-8	267
-6	292
-4	318
-2	345
0	373
2	403
4	434
6	466
8	500
10	535
12	572
14	610
16	650
18	692
20	735
22	780
24	827
26	875
28	926
30	978
32	1032
34	1088
36	1146
38	1206
40	1268
42	1332
44	1399
46	1468
48	1539
50	1612

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