

R-407C

TECHNICAL DATA SHEET

Components

Chemical Name	Chemical Formula	%By weight	CAS No	EC No
1,1,1,2-Tetrafluoroethane (R134a)	C ₂ H ₄ F ₂	%52	811-97-2	212-377-0
Pentafluoroethane (R125)	CF ₃ CHF ₂	%25	354-33-6	206-557-8
Difluoromethane (R32)	CH ₂ F ₂	%23	75-10-5	200-839-4

Physical and Chemical Properties

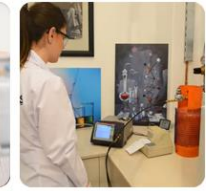
At normal temperature and pressure, R407C is a colourless gas.

Physical state.....	Gas
Form.....	Compressed liquefied gas
Molecular Weight (g/mol)...	86.2
Boiling Point at 1 atm, (°C)	-43.5
Sliding boiling at 1 atm, (K)	7.2
Vapor pressure 25°C, (bar).....	11.74
Liquid Density at 25°C, (kg/m ³)	1134
Critical Temperature, °C.....	86.74
Critical Pressure, bar.....	46.2
Critical Density, (kg/m ³)	527
Heat Capacity of Liquid at 25°C,kJ/kgK.....	1.54
Heat Capacity of Vapor at 1 atm at 25°C, kJ/kgK.....	0.83
Solubility in water 25°C (Ppm)	Negligible
Flammability (solid, gas) (%vol).....	None
ODP.....	0
GWP.....	1774*

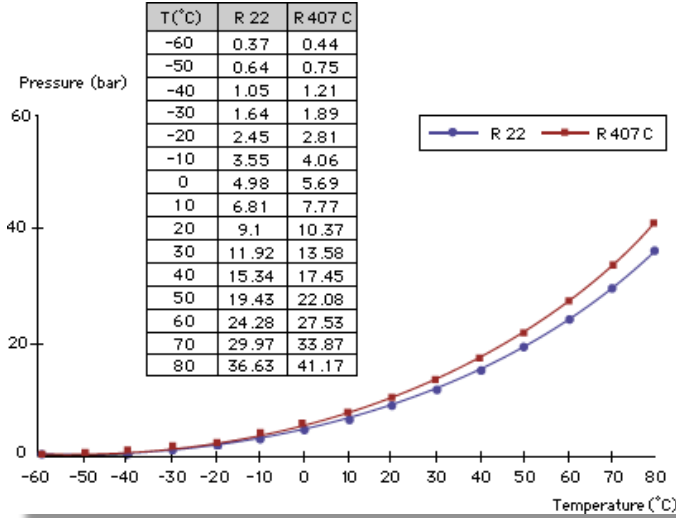
Commercial Specifications (ISO9002)

Purity, %, min.....	99.5
Moisture content, ppm by weight.	10
Acid Value, ppm by weight.....	0.1
Residue, mg.kg.....	100

*The regulation on fluorinated greenhouse gases of EU 517-2014 has been taken considered.



Comparison Chart Temperature/ Pressure R-407C-R-22



Thermodynamic Properties

TEMP. (°C)	ABSOLUTE PRESSURE (bar)		DENSITY (Kg/m ³)		ENTHALPY (kJ/Kg)		ENTROPY (kJ/Kg.K)	
	LIQUID	VAPOUR	LIQUID	VAPOUR	LIQUID	VAPOUR	LIQUID	VAPOUR
-40	1.23	0.86	1357.25	3.97	150.43	391.42	0.9021	1.9537
-35	1.53	1.10	1341.98	4.99	156.77	394.48	0.9289	1.9438
-30	1.90	1.39	1326.46	6.22	163.19	397.50	0.9555	1.9348
-25	2.23	1.73	1310.57	7.68	169.68	400.46	0.9818	1.9265
-20	2.82	2.15	1294.36	9.39	176.24	403.37	1.0078	1.9188
-15	3.40	2.63	1277.77	11.40	182.88	406.20	1.0336	1.9117
-10	4.07	3.19	1260.67	13.73	189.60	408.96	1.0592	1.9050
-5	4.82	3.84	1243.42	16.43	196.40	411.62	1.0845	1.8986
0	5.69	4.59	1225.36	19.55	203.29	414.18	1.1097	1.8926
5	6.66	5.45	1206.85	23.12	210.27	416.62	1.1348	1.8869
10	7.75	6.42	1187.65	27.22	217.35	418.94	1.1597	1.8813
15	8.97	7.52	1167.98	31.90	224.53	421.12	1.1845	1.8758
20	10.33	8.76	1147.48	37.25	231.83	423.15	1.2092	1.8704
25	11.84	10.14	1126.48	43.33	239.25	425.01	1.2338	1.8650
30	13.50	11.68	1103.98	50.27	246.79	426.68	1.2584	1.8595
35	15.33	13.39	1080.77	58.17	254.48	428.14	1.2830	1.8539
40	17.34	15.29	1056.45	67.18	262.33	429.37	1.3077	1.8480
45	19.52	17.37	1030.86	77.48	270.36	430.34	1.3324	1.8418
50	21.91	19.67	1003.81	89.28	278.58	431.02	1.3574	1.8352



Mollier Diagram

