



THE LOWER GWP, NON-FLAMMABLE, DIRECT SUBSTITUTE FOR R-404A AND R-507 REFRIGERANT RS-51 (R-470B)



- ✓ **DIRECT SUBSTITUTE (DROP-IN)**
- ✓ **MORE ENVIRONMENTALLY FRIENDLY: GWP=746**
- ✓ **DOES NOT DEplete THE OZONE LAYER**
- ✓ **SIMILAR COOLING CAPACITY AND COP VS. R-410A**
- ✓ **INSTALLATION OF THE FUTURE:**
SUITABLE FOR NEW INSTALLATIONS AND RETROFITTING
- ✓ **NON-FLAMMABLE (A1)**

It is a zeotropic HFC+HFO refrigerant gas mixture, ozone friendly and with the lowest global warming potential (GWP: 746), used in new medium and low temperature refrigeration systems. It is also a direct (drop-in) replacement for R-404A and R-507 and their substitutes (R-407A/F/H, R-448A, R-449A) and non-drop-in replacement for R-22 and its substitutes (R-448A, R-449A).

APPLICATIONS

✓ Industrial and commercial refrigeration, and chillers.

BENEFITS:

- ✓ GWP=746, 81 % lower than R-404A / 46 % lower than R-448A & R-449A.
- ✓ Compatible lubricants: Polyolester (POE).
- ✓ Cooling capacity and COP similar to R-404A.
- ✓ Discharge pressure: lower than R-404A.
- ✓ No ozone depletion (ODP=0).
- ✓ Safety classification: A1. **Non-flammable and low toxicity.**

IN CASE OF RETROFIT:

- Retrofit of R-404A/R-507: May require adjustment of the expansion valve, or replace it with one for R-134a.
- R-22 Retrofit: May require replacement of gaskets, lubricant and adjustment of expansion valve.

R-470B RS-51



A refrigerant for the future, non-flammable and with very low GWP.

RS-51 has the lowest GWP of all the alternatives to R-404A/R-507 classified as A1 (non-flammable, low toxicity).

R-470B (RS-51) provides a COP (coefficient of performance) similar to R-404A.

PRESSURE/TEMPERATURE TABLE			
°C °F	HFC / HFC+HFO (bar)		
	R-404A	RS-51	
		Drop	Flare
-50	-0,14	0,71	-0,62
-48	-0,05	0,86	-0,58
-46	0,04	1,02	-0,53
-44	0,14	1,19	-0,47
-42	0,25	1,37	-0,41
-40	0,37	1,56	-0,34
-38	0,50	1,77	-0,27
-36	0,63	1,98	-0,19
-34	0,78	2,21	-0,11
-32	0,93	2,44	-0,01
-30	1,10	2,69	0,08
-28	1,27	2,96	0,19
-26	1,46	3,24	0,31
-24	1,66	3,53	0,43
-22	1,87	3,83	0,57
-20	2,09	4,15	0,71
-18	2,33	4,49	0,86
-16	2,58	4,84	1,03
-14	2,84	5,21	1,20
-12	3,12	5,59	1,39
-10	3,41	5,99	1,58
-8	3,72	6,41	1,80
-6	4,04	6,84	2,02
-4	4,39	7,30	2,26
-2	4,74	7,77	2,51
0	5,12	8,26	2,78
2	5,52	8,77	3,06
4	5,93	9,29	3,36
6	6,36	9,84	3,68
8	6,82	10,41	4,01
10	7,29	11,00	4,36
12	7,78	11,60	4,73
14	8,30	12,23	5,12
16	8,84	12,88	5,53
18	9,40	13,56	5,96
20	9,98	14,25	6,41
22	10,59	14,97	6,89
24	11,23	15,71	7,38
26	11,88	16,47	7,90
28	12,57	17,25	8,45
30	13,28	18,06	9,02
32	14,03	18,90	9,62
34	14,78	19,75	10,25
36	15,58	20,63	10,90
38	16,40	21,54	11,58
40	17,25	22,47	12,30
42	18,13	23,42	13,04
44	19,05	24,40	13,82
46	19,99	25,40	14,63
48	20,97	26,43	15,48

Relative / gauge pressure.