

GENETRON® 32

Genetron® 32 (R-32) can replace R-410A in new air conditioning and chiller equipment.

R-32 has GWP of 675, which is 68% lower than R-410A. It is mildly flammable, which means you must observe applicable regulations and standards for handling A2L refrigerants. It should not be used in equipment retrofits.

As a straight R-410A system replacement, R-32 has around 10% more capacity. As a result, a new system built for R-32 will deliver higher cooling capacity, or require smaller displacement compressors to achieve the same capacity. Efficiency gains over R-410A are expected, provided the system and component designs have been optimized for R-32.



GENERAL INFORMATION

ASHRAE #	R-32
Class	HFC
Refrigerant Type	Molecule
Typical Lubricant	POE
Replaces	R-410A
GWP (IPCC AR4)	675
ODP	Non-ozone depleting
REACH	Approved
Temperature Glide	0 K
PED (Pressure Equipment Directive) Category	Cat 1
ANSI/ASHRAE Standard	A2L

PHYSICAL PROPERTIES

PROPERTY	VALUE
Chemical Notation	CH ₂ F ₂
Critical Temperature (°C)	78.11 °C
Boiling Point (°C)	-52°C
Critical Pressure (bar)	57.82 bar
Liquid Density (kg/m ³) 0°C	961 kg/m ³
Relative Molar Mass (g/mol)	52.02
Vapour Density (kg/m ³) 25°C	47.34 kg/m ³
ATEL/ODL (kg/m ³)	0.300
Practical Limit (kg/m ³)	0.061
Low Flammability Limit (LFL) vol%	13.6
Upper Flammability Limit (UFL) vol%	28.4
Minimum Ignition Energy (mJ)	15-100
Heat of Combustion (MJ/kg)	9.5
Burning Velocity (cm/s)	6.7
Auto-ignition Temperature (°C)	648

FEATURES & BENEFITS:

- Reduced GWP: 68% reduction compared to R-410A
- 10% more capacity and energy efficiency as compared to R-410A.
- Mildly flammable and non-toxic, with an ASHRAE classification of A2L
- Smaller charge requirements mean exchangers and components can be more compact
- Similar boiling temperature to R-410A
- Single molecule with zero glide

APPLICATIONS:

- Split Air-Conditioning
- Scroll Chillers
- Rooftop Units
- Air Handling Unit (AHU)
- Low-temperature Refrigeration

For more information visit

www.fluorineproducts-honeywell.com/refrigerants

Honeywell Refrigerants

115 Tabor Road
Morris Plains, NJ 07950
800-631-8138

Although Honeywell International Inc. believes that the information contained herein is accurate and reliable, it is presented without guarantee or responsibility of any kind and does not constitute any representation or warranty of Honeywell International Inc., either expressed or implied. A number of factors may affect the performance of any products used in conjunction with user's materials, such as other raw materials, application, formulation, environmental factors and manufacturing conditions among others, all of which must be taken into account by the user in producing or using the products. The user should not assume that all necessary data for the proper evaluation of these products are contained herein. Information provided herein does not relieve the user from the responsibility of carrying out its own tests and experiments, and the user assumes all risks and liabilities (including, but not limited to, risks relating to results, patent infringement, regulatory compliance and health, safety and environment) related to the use of the products and/or information contained herein.

7688_Genetron® 32 | June 2020
© 2020 Honeywell International Inc. All right reserved.

Honeywell