



# Freon™ 410A

## Refrigerant (R-410A)

## Product Information

Freon™ 410A is a non-ozone depleting high efficiency hydrofluorocarbon (HFC) refrigerant. Freon™ 410A has higher cooling capacity and operating pressures than R-22 for new equipment specifically designed for R-410A.

### ASHRAE #

R-410A

### Applications – New applications only

- Residential and commercial air conditioning (AC)
- Heat pumps

### Benefits

- Non-ozone depleting HFC
- Nonflammable. ASHRAE safety classification: A1
- Leading HFC refrigerant replacing R-22 in residential and commercial AC, as well as heat pump, applications
- Higher cooling capacity compared to R-22

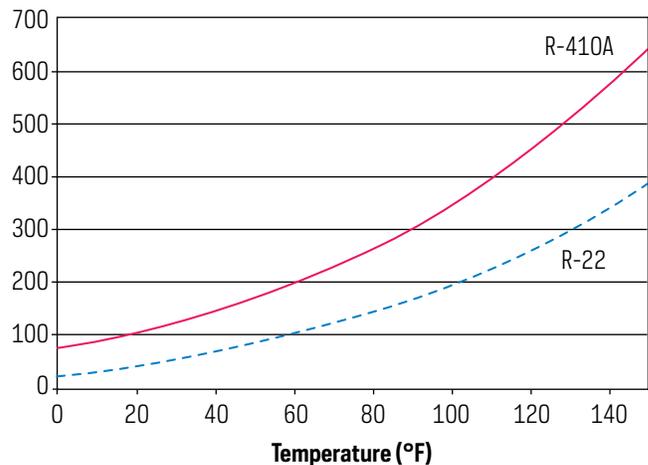
### Lubricant Recommendation

- Polyol ester (POE)

### Special Handling

- Freon™ 410A cannot be used for retrofit.
  - Freon™ 410A has higher operating pressures compared to R-22.
  - Freon™ 410A is for new equipment that is specifically designed for R-410A.
- Freon™ 410A will require use of manifold gauge sets, recovery machines, and recovery tanks specifically designed for higher pressures encountered with R-410A.

### Saturation Pressure (psig): R-22 vs. R-410A



### AC System Considerations

Because of its enhanced properties, Freon™ 410A systems will operate differently than R-22 systems. Comparative refrigerant properties provided below are based on refrigeration capacity per pound of refrigerant. Refer to actual equipment design parameters for performance in equipment.

### Properties

Refrigerant Properties	Freon™ 410A vs. R-22
Discharge Pressure	+50 to +70%
Cooling Capacity	+45%
Discharge Temperature	-10 °F (-23.3 °C)
Energy Efficiency	+5 to -5%
Lubricant	POE

Because of higher pressure, most system components have been redesigned with increased wall thickness. When servicing this equipment, make sure you use reversing valves, expansion valves, filter-driers, and other components specifically designed for R-410A.

In addition to increased wall thickness, the expansion valve flow area required to provide the same tonnage as R-22 will be about 15% smaller.

R-410A is a blend of two refrigerants. To achieve optimum performance, remove as a liquid from the cylinder.

Consult your Chemours distributor or the OEM for special equipment recommendations.

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**For more information on Freon™ refrigerants, visit [freon.com](http://freon.com)**

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