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
- Nonflamable. 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.

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.

<table>
<thead>
<tr>
<th>Properties</th>
<th>Freon™ 410A vs. R-22</th>
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<tbody>
<tr>
<td>Discharge Pressure</td>
<td>+50 to +70%</td>
</tr>
<tr>
<td>Cooling Capacity</td>
<td>+45%</td>
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<tr>
<td>Discharge Temperature</td>
<td>-10 °F (-23.3 °C)</td>
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<tr>
<td>Energy Efficiency</td>
<td>+5 to -5%</td>
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<tr>
<td>Lubricant</td>
<td>POE</td>
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</tbody>
</table>
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.