

# Pressure Temperature Charts



| °F  | °C    | R-449A<br>Liquid | R-449A<br>Vapor |
|-----|-------|------------------|-----------------|
| -40 | -40.0 | 4.8              | 0.0             |
| -35 | -37.2 | 7.4              | 2.0             |
| -30 | -34.4 | 10.2             | 4.4             |
| -25 | -31.7 | 13.3             | 6.9             |
| -20 | -28.9 | 16.7             | 9.8             |
| -15 | -26.1 | 20.5             | 12.9            |
| -10 | -23.3 | 24.6             | 16.3            |
| -5  | -20.6 | 29.0             | 20.1            |
| 0   | -17.8 | 33.8             | 24.1            |
| 5   | -15.0 | 39.0             | 28.6            |
| 10  | -12.2 | 44.6             | 33.4            |
| 15  | -9.4  | 50.6             | 38.6            |
| 20  | -6.7  | 57.1             | 44.3            |
| 25  | -3.9  | 64.0             | 50.4            |
| 30  | -1.1  | 71.5             | 56.9            |
| 35  | 1.7   | 79.5             | 64.0            |
| 40  | 4.4   | 88.0             | 71.6            |
| 45  | 7.2   | 97.1             | 79.7            |
| 50  | 10.0  | 107              | 88.4            |
| 55  | 12.8  | 117              | 97.7            |

| °F  | °C   | R-449A<br>Liquid | R-449A<br>Vapor |
|-----|------|------------------|-----------------|
| 60  | 15.6 | 128              | 108             |
| 65  | 18.3 | 140              | 118             |
| 70  | 21.1 | 152              | 129             |
| 75  | 23.9 | 165              | 141             |
| 80  | 26.7 | 179              | 154             |
| 85  | 29.4 | 193              | 167             |
| 90  | 32.2 | 208              | 182             |
| 95  | 35.0 | 224              | 197             |
| 100 | 37.8 | 241              | 213             |
| 105 | 40.6 | 259              | 229             |
| 110 | 43.3 | 278              | 247             |
| 115 | 46.1 | 297              | 266             |
| 120 | 48.9 | 318              | 286             |
| 125 | 51.7 | 339              | 307             |
| 130 | 54.4 | 362              | 329             |
| 135 | 57.2 | 385              | 352             |
| 140 | 60.0 | 410              | 376             |
| 145 | 62.8 | 435              | 402             |
| 150 | 65.6 | 462              | 429             |

Vapor Pressure in PSIG

## Refrigerant Boiling Point

| Refrigerant |                                                                                                                                                                  | BP      |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| R-449A      | R-134a (25.7%), R-1234yf (25.3%), R-125 (24.7%), R-32 (24.3%)<br>1,1,1,2-Tetrafluoroethane, 2,3,3,3-Tetrafluoroprop-1-ene,<br>Pentafluoroethane, Difluoromethane | -50.7°F |

## Liquid Density

| Refrigerant |           | -80°F | -40°F | 0°F   | 40°F  | 80°F  | 120°F |
|-------------|-----------|-------|-------|-------|-------|-------|-------|
| R-449A      | #/cu. ft. | 87.26 | 83.11 | 78.63 | 73.69 | 67.96 | 60.79 |
|             | #/gal.    | 11.66 | 11.11 | 10.51 | 9.85  | 9.08  | 8.13  |

## Physical Properties

|                                                  | R-449A                  |
|--------------------------------------------------|-------------------------|
| Environmental Classification                     | HFC/HFO Zeotropic Blend |
| Molecular Weight                                 | 87.2                    |
| Boiling Point (1atm, °F)                         | -50.7                   |
| Critical Pressure (psia)                         | 655                     |
| Critical Temperature (°F)                        | 178.7                   |
| Critical Density (lb./ft <sup>3</sup> )          | 29.06                   |
| Vapor Density (bp, lb./ft <sup>3</sup> )         | 0.297                   |
| Heat of Vaporization (bp, BTU/lb.)               | 101.1                   |
| Global Warming Potential (CO <sub>2</sub> = 1.0) | 1282                    |
| ASHRAE Standard 34 Safety Rating                 | A1                      |