

# Pressure Temperature Charts



| °F  | °C    | R-513A |
|-----|-------|--------|
| -40 | -40.0 | 12.1   |
| -35 | -37.2 | 9.4    |
| -30 | -34.4 | 6.5    |
| -25 | -31.7 | 3.3    |
| -20 | -28.9 | 0.1    |
| -15 | -26.1 | 2.1    |
| -10 | -23.3 | 4.2    |
| -5  | -20.6 | 6.6    |
| 0   | -17.8 | 9.1    |
| 5   | -15.0 | 11.9   |
| 10  | -12.2 | 15.0   |
| 15  | -9.4  | 18.3   |
| 20  | -6.7  | 21.9   |
| 25  | -3.9  | 25.9   |
| 30  | -1.1  | 30.1   |
| 35  | 1.7   | 34.6   |
| 40  | 4.4   | 39.6   |
| 45  | 7.2   | 44.8   |
| 50  | 10.0  | 50.5   |
| 55  | 12.8  | 56.5   |

| °F  | °C   | R-513A |
|-----|------|--------|
| 60  | 15.6 | 63.0   |
| 65  | 18.3 | 69.9   |
| 70  | 21.1 | 77.3   |
| 75  | 23.9 | 85.1   |
| 80  | 26.7 | 93.4   |
| 85  | 29.4 | 102    |
| 90  | 32.2 | 112    |
| 95  | 35.0 | 121    |
| 100 | 37.8 | 132    |
| 105 | 40.6 | 143    |
| 110 | 43.3 | 155    |
| 115 | 46.1 | 167    |
| 120 | 48.9 | 180    |
| 125 | 51.7 | 193    |
| 130 | 54.4 | 207    |
| 135 | 57.2 | 222    |
| 140 | 60.0 | 238    |
| 145 | 62.8 | 254    |
| 150 | 65.6 | 271    |

Vapor Pressure in PSIG

In Vacuum (inches in Hg)

## Refrigerant Boiling Point

| Refrigerant | Components  | BP      |
|-------------|---|---------|
| R-513A      | R-1234yf (56%), R-134a (44%) 2,3,3,3-Tetrafluoroprop-1-ene, 1,1,1,2-Tetrafluoroethane | -20.6°F |

## Liquid Density

| Refrigerant |           | -80°F | -40°F | 0°F   | 40°F  | 80°F  | 120°F |
|-------------|-----------|-------|-------|-------|-------|-------|-------|
| R-513A      | #/cu. ft. | 90.19 | 86.32 | 82.21 | 77.73 | 72.69 | 66.76 |
|             | #/gal.    | 12.06 | 11.54 | 10.99 | 10.39 | 9.72  | 8.92  |

## Physical Properties

|  | R-513A                  |
|--|-------------------------|
| Environmental Classification                     | HFC/HFO Zeotropic Blend |
| Molecular Weight                                 | 108.4                   |
| Boiling Point (1atm,°F)                          | -20.6                   |
| Critical Pressure (psia)                         | 546                     |
| Critical Temperature (°F)                        | 174                     |
| Critical Density (lb./ft <sup>3</sup> )          | 32.26                   |
| Vapor Density (bp,lb./ft <sup>3</sup> )          | 0.3530                  |
| Heat of Vaporization (bp,BTU/lb.)                | 84.3                    |
| Global Warming Potential (CO <sub>2</sub> = 1.0) | 573                     |
| ASHRAE Standard 34 Safety Rating                 | A1                      |