

Substance: R1224yd(Z)

Published

Table Measured capillary constant and surface tension of HCFO-1224yd(Z)

| series | Temperature (ITS-90) | Capillary rise height difference | | | Vapor* density | Liquid* density | Capillary constant | Surface tension | |
|--------|-------------------------|----------------------------------|------------------|------------------|---------------------|---------------------|-----------------------|--------------------|-------|
| | $T / [K]$ | $Dh_{m1} / [mm]$ | $Dh_{m2} / [mm]$ | $Dh_{m3} / [mm]$ | $\rho_V / [kg/m^3]$ | $\rho_L / [kg/m^3]$ | $a^2 / [mm^2]$ | $\sigma / [mN/m]$ | |
| 1 | 335.17 | 1.48 | 2.22 | 3.70 | 28.63 | 1250.64 | 1.40 | 8.36 | |
| | 351.60 | 1.23 | 1.86 | 3.07 | 43.84 | 1194.71 | 1.16 | 6.56 | |
| | 361.77 | 1.05 | 1.60 | 2.64 | 56.40 | 1156.96 | 1.00 | 5.38 | |
| | 372.13 | 0.89 | 1.34 | 2.23 | 72.47 | 1115.34 | 0.84 | 4.28 | |
| 2 | 266.00 | 2.44 | 3.87 | 6.32 | 2.79 | 1445.76 | 2.38 | 16.85 | |
| | 271.89 | 2.35 | 3.70 | 6.08 | 3.57 | 1430.83 | 2.29 | 15.99 | |
| | 280.83 | 2.23 | 3.54 | 5.77 | 5.10 | 1407.69 | 2.18 | 14.97 | |
| | 287.34 | 2.08 | 3.39 | 5.48 | 6.50 | 1390.47 | 2.06 | 13.98 | |
| | 296.79 | 2.00 | 3.15 | 5.15 | 9.05 | 1364.84 | 1.94 | 12.91 | |
| | 309.52 | 1.80 | 2.86 | 4.64 | 13.67 | 1328.97 | 1.76 | 11.31 | |
| | 316.03 | 1.72 | 2.73 | 4.45 | 16.67 | 1309.95 | 1.68 | 10.62 | |
| | 329.35 | 1.51 | 2.39 | 3.88 | 24.42 | 1269.28 | 1.47 | 8.95 | |
| | 342.00 | 1.33 | 2.09 | 3.43 | 34.30 | 1228.05 | 1.29 | 7.54 | |
| | 357.30 | 1.11 | 1.75 | 2.87 | 50.53 | 1173.89 | 1.08 | 5.92 | |
| | 367.09 | 0.95 | 1.50 | 2.46 | 64.18 | 1136.04 | 0.92 | 4.83 | |
| | 3 | 266.74 | 2.49 | 3.66 | 6.16 | 2.88 | 1443.88 | 2.34 | 16.49 |
| | | 272.87 | 2.43 | 3.53 | 5.96 | 3.72 | 1428.30 | 2.27 | 15.82 |
| 275.52 | | 2.38 | 3.46 | 5.84 | 4.14 | 1421.49 | 2.22 | 15.42 | |
| 287.51 | | 2.20 | 3.18 | 5.40 | 6.54 | 1390.01 | 2.05 | 13.87 | |
| 293.45 | | 2.11 | 3.08 | 5.20 | 8.07 | 1373.99 | 1.97 | 13.20 | |
| 303.04 | | 1.96 | 2.87 | 4.85 | 11.13 | 1347.45 | 1.84 | 12.02 | |
| 319.83 | | 1.71 | 2.52 | 4.22 | 18.64 | 1298.59 | 1.60 | 10.05 | |
| 325.37 | | 1.68 | 2.39 | 4.08 | 21.86 | 1281.67 | 1.55 | 9.55 | |
| 337.62 | | 1.49 | 2.12 | 3.60 | 30.56 | 1242.65 | 1.37 | 8.12 | |
| 346.99 | | 1.34 | 1.90 | 3.10 | 39.01 | 1210.98 | 1.21 | 6.95 | |
| 368.60 | 0.98 | 1.41 | 2.40 | 66.57 | 1129.93 | 0.90 | 4.70 | | |

Parachor
Critical Temp. ** 207
428.69 K

*Akasaka, R., Fukushima, M., and Lemmon, E.W.,
"A Helmholtz Energy Equation of State
for cis-1-chloro-2,3,3,3-Tetrafluoropropene (R-1224yd(Z)),"
European Conference on Thermophysical Properties,
Graz, Austria, September 3-8, 2017.

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Data*, 64 (12), 5462-5468 (Nov. 8, 2019) DOI:10.1021/acs.jced.9b00613

