

Dry Ice Technical Specifications

Physical properties

May 2020

| Property | Value |
|---|--|
| Formula | CO ₂ |
| Molecular Weight | 44.01 |
| Appearance | Colorless, odorless gas; colorless liquid, or white opaque solid (dry ice) |
| Density Solid (Dry Ice) | 97.5189 lb./ft. ³ at -109.3° F |
| Density Liquid | 63.69 lb./ft. ³ at 0° F |
| Density Gas | 0.1234 lb./ft. ³ at 32° F |
| Melting Point | -69.9° F, 75.1 PSIA |
| Boiling Point | -109.3° F (Sublimes) |
| Triple Point | -69.9° F, 75.1 PSIA |
| Critical Temperature | 87.8° F |
| Critical Pressure | 1069.4 PSIA |
| Critical Density | 28.9519 lb./ft. ³ |
| Specific Heat Gas | 0.1989 BTU/lb. ° F (60° F) |
| Specific Heat Liquid | 0.53 BTU/lb. ° F (0° F) |
| Ratio of Heat Capacities | 1.3 |
| Latent Heat of Fusion (Triple Point) | 85 BTU/lb. (69.9° F) |
| Latent Heat of Vaporization (Liquiflow) | 122 BTU/lb. (0° F) |
| Latent Heat of Sublimation (Dry Ice) | 246 BTU/lb. (-110° F) |
| Viscosity Gas | 0.015 Centipoises (32° F) |
| Viscosity Liquid | 0.14 Centipoises (0° F) |
| Thermal Conductivity Gas | 0.0085 BTU ft./ft. ² ° F Hr. (32° F) |
| Thermal Conductivity Liquid | 0.11 BTU ft./ft. ² ° F Hr. (0° F) |
| Surface Tension (Liquid) | 8.23 Dynes/cm (0° F) |
| Solubility in H ₂ O | 1.79 ft. ³ CO ₂ Gas/ft. ³ H ₂ O(32° F) |