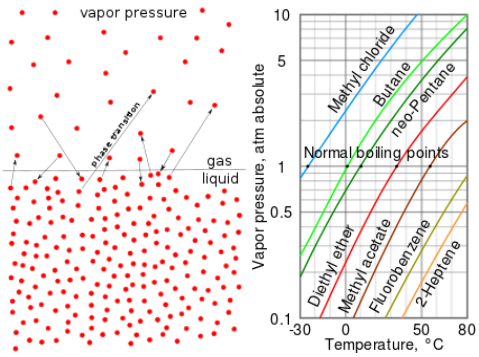
Method compliance: ASTM D1267-18

This test method covers the determination of the gauge vapor pressures of liquefied petroleum gas products at temperatures of 37.8 °C (100 °F) up to and including a test temperature of 70 °C (158 °F).

What is the dewpoint temperature?

Vapor pressure (or vapour pressure in British spelling) or equilibrium vapor pressure is defined as the pressure exerted by a vapor in thermodynamic equilibrium with its condensed phases (solid or liquid) at a given temperature in a closed system. The equilibrium vapor pressure is an indication of a liquid's evaporation rate. It relates to the tendency of particles to escape from the liquid (or a solid). A substance with a high vapor pressure at normal temperatures is often referred to as volatile. The pressure exhibited by vapor present above a liquid surface is known as vapor pressure. As the temperature of a liquid increases, the kinetic energy of its molecules also increases. As the kinetic energy of the molecules increases, the number of molecules transitioning into a vapor also increases, thereby increasing the vapor pressure.



Scope

- This test method covers the determination of the gage vapor pressure of liquefied petroleum gas products at temperatures of 37,8 °C (100 °F) up to and including a test temperature of 70 °C (158 °F).
- The values stated in acceptable metric units are to be regarded as the standard. The values in parentheses are for information only.

Significance and Use

- Information on the vapor pressure of liquefied petroleum gas products under temperature conditions from 37,8 to 70 °C (100 to 158 °F) is pertinent to selection of property designed storage vessels, shipping containers, and customer utilization equipment to ensure safe handling of these products.
- Determination of the vapor pressure of liquefied petroleum gas is important for safety reasons to ensure that the maximum operating design pressures of storage, handing, and fuel systems will not be exceeded under normal operating temperature conditions.,
- For liquefied petroleum gases, vapor pressure is an indirect measure of the most extreme low temperature conditions under which initial vaporization can be expected to occur. It can be considered a semi-quantitative measure of the amount of the most volatile material pressure in the product.

Equipment specification

RVP Data Acquisition System, 230V 50/60Hz

RVP Pressure Transducer, 0-200psi