



ASTM E-928

Test Method for Purity by DSC

This method makes use of a Differential Scanning Calorimeter to measure the melt temperature and the Enthalpy of fusion (melting) of a solid chemical compound or substance and then, using the well-known van't Hoff equation, to calculate the percent purity of this substance. The limitations of applicability of the experiment and the equation are that the substance must be at least 98.5% pure and the impurities present must be soluble in the melted base material to affect its melt temperature. In general the melting range of a compound broadens as the levels of impurities rise. Literature values of enthalpy are readily available for high purity compounds and can be compared to the experimental values generated by this method.

(E928, E-928, E 928)

ASTM Standard D5594, 2007, "Test Method for Purity by DSC," ASTM International, West Conshohocken, PA, 2007, DOI: 10.1520/E928-03, www.astm.org.

New Hampshire Materials Laboratory, Inc
www.nhml.com • info@nhml.com
Tel: 800-334-5432 or 603-692-4110 • Fax: 603-692-4008