



Designation: D 1250 – 08



Designation: 200/07

Все авторские права принадлежат Американскому обществу по материалам и их испытаниям (ASTM), 100 Barr Harbor Drive, West Conshohocken, PA 19428, United States of America. Данная копия сделана по лицензии ASTM.

An American National Standard

Standard Guide for Use of the Petroleum Measurement Tables¹

This standard is issued under the fixed designation D 1250; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

This standard has been approved for use by agencies of the Department of Defense.

INTRODUCTION

This guide discusses the use of temperature and pressure volume correction factors for generalized crude oils, refined products, and lubricating oils, developed jointly by ASTM International, the American Petroleum Institute (API) and the Energy Institute.²

The volume correction factors, in their basic form, are the output of a set of equations derived from, and based on, empirical data relating to the volumetric change of hydrocarbons over a range of temperatures and pressures. Traditionally, the factors have been listed in tabular format called the Petroleum Measurement Tables (hence the appearance of this term in the title), and published as an API Standard/Adjunct to IP 200/Adjunct to ASTM D 1250. However, since the 1980 revision the actual standard has been a set of implementation procedures, not printed tables nor simply a set of equations.

This revised standard, API MPMS Chapter 11.1–2004/Adjunct to IP 200/04/Adjunct to ASTM D 1250–04 (ADJD1250CD), establishes procedures for crude oils, liquid refined products, and lubricating oils, by which volume measurements taken at any temperature and pressure (within the range of the standard) can be corrected to an equivalent volume at base/standard conditions, normally 15°C, 60°F or 20°C, by use of a volume correction factor (VCF). The standard, API MPMS Chapter 11.1–2004/Adjunct to IP 200/04/Adjunct to ASTM D 1250–04 (ADJD1250CD), also provides methods for making conversions to alternate conditions from base conditions and to alternate base temperatures. Densities can be corrected by using the inverse of the VCF.

See Section 5 for a list of significant changes from Guide D 1250–80 (provided in its entirety in Annex A1³).

USAGE GUIDELINES

The revised standard, API MPMS Chapter 11.1–2004/Adjunct to IP 200/04/Adjunct to ASTM D 1250–04 (ADJD1250CD), is effective upon the date of publication and supersedes the previous edition of the standard/adjunct(s). However, due to the nature of the changes in the revised standard/adjunct(s), it is recognized that guidance concerning an implementation period may be needed in order to avoid disruptions within the industry and ensure proper application. As a result, it is recommended that the revised standard/adjunct(s) be used on all new applications no later than *two years after the publication date* (May 2004). An application for this purpose is defined as the point where the calculation is applied.

Once the revised standard/adjunct(s) is implemented in a particular application, the previous standard will no longer be used in that application.

If an existing application complies with the previous standard/adjunct(s) (as referenced in Annex A1³), then it shall be considered in compliance with the revised standard/adjunct(s).

However, the use of the API MPMS Chapter 11.1–2004/Adjunct to IP 200/04/Adjunct to ASTM D 1250–04 (ADJD1250CD) remains voluntary, and the decision on when to utilize a standard is an issue that is subject to the negotiations between the parties involved in the transaction.