DIN 51517-3



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Schmierstoffe – Schmieröle – Teil 3: Schmieröle CLP, Mindestanforderungen, Englische Übersetzung von DIN 51517-3:2018-09

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Foreword

This standard has been prepared by Working Committee NA 062-06-51 AA "Requirements for lubricating and other oils" of *Fachausschuss Mineralöl- und Brennstoffnormung* (FAM) (Standardization of petroleum, fuels, lubricants and related products committee) of *DIN-Normenausschuss Materialprüfung* (DIN Standards Committee Materials Testing).

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DIN 51517, *Lubricants — Lubricating oils* consists of:

- Part 1: Lubricating oils C, Minimum requirements
- Part 2: Lubricating oils CL, Minimum requirements
- Part 3: Lubricating oils CLP, Minimum requirements

Amendments

This standard differs from DIN 51517-3:2014-02 as follows:

- a) the normative references and references to test standards have been updated;
- b) Annex A "Read-across guidelines for application on different ISO viscosity grades (ISO VG)" has been rewritten;
- c) Note 2 on the application of read-across has been included in Clause 5;
- d) the Flender foam test according to ISO 12152 has been included;
- e) changes have been made to Table 1, Minimum requirements, concerning the limit values for compatibility with the elastomer SRE-NBR 28/SX;
- f) the footnotes e and h in Table 1 have been amended;
- g) Annex B, Recommended levels of elastomer compatibility, has been added.

Previous editions

DIN 51517: 1970-10 DIN 51517-3: 1979-12, 1989-09, 2004-01, 2009-06, 2011-08, 2014-02 DIN 51517-3 Corrigendum 1: 2005-12

1 Scope

This standard specifies minimum requirements for type CLP lubricating oils¹).

The use of type CLP lubricating oils is mainly recommended for circulation lubrication and splash lubrication if there are more stringent requirements on the anti-wear protection in the mixed friction area.

Type CLP lubricating oils can also be used as hydraulic oils and as general purpose lubricating oils or machine oils.

The use of type CLP lubricating oils is recommended if high loads necessitate increased anti-wear protection in the mixed friction area for the friction points and/or if surface damage, such as scuffing, is to be prevented in the case of overload. In respect of the Note in Clause 5 of this standard, type CLP lubricating oils are suitable for a wide range of applications specified in ISO 6743-6.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

DIN 51502, Designation of lubricants and marking of lubricant containers, equipment and lubricating points

DIN 51757, Testing of mineral oils and related materials — Determination of density

DIN 51777-2, Testing of mineral oil hydrocarbons and solvents — Determination of water content according to Karl Fischer — Part 2: Indirect method

DIN 51819-3; Testing of lubricants — Mechanical-dynamic testing in the roller bearing test apparatus FE8 — Part 3: Test method for lubricating oils, axial cylindrical roller bearing

DIN EN ISO 2160, Petroleum products — Corrosiveness to copper — Copper strip test

DIN EN ISO 2592, Petroleum products and related products — Determination of flash and fire points — Cleveland open cup method

DIN EN ISO 3104, Petroleum products — Transparent and opaque liquids — Determination of kinematic viscosity and calculation of dynamic viscosity

DIN EN ISO 4259-1, Petroleum and related products — Precision of measurement methods and results — Part 1: Determination of precision data in relation to methods of test

DIN EN ISO 4263-4, Petroleum and related products — Determination of the ageing behaviour of inhibited oils and fluids — TOST test — Part 4: Procedure for industrial gear oils

DIN ISO 1817, Rubber, vulcanized or thermoplastic — Determination of the effect of liquids

DIN ISO 2909, Petroleum products — Calculation of viscosity index from kinematic viscosity

¹⁾ The symbols correspond to those specified in DIN 51502, whereby the code letter L in accordance with this standard denotes additives used to improve the corrosion protection and the resistance to ageing, whereas the code letter P denotes additives used to reduce friction and wear in the mixed friction area and/or to increase the load-carrying capacity. The allocation of the symbols in accordance with DIN 51502 and the classification in accordance with the standard series ISO 6743 are given in the National Foreword of DIN ISO 6743-99. Type CLP lubricating oils do **not** exactly fit in this ISO classification scheme.