



भारतीय मानक ब्यूरो

(उपभोक्ता मामले, खाद्य एवं सार्वजनिक वितरण मंत्रालय, भारत सरकार)

BUREAU OF INDIAN STANDARDS

(Ministry of Consumer Affairs, Food & Public Distribution, Govt. of India)

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DRAFT INDIAN STANDARD IN WIDE CIRCULATION

Reference : PCD 25(26883)WC

Date : 07 November 2024

TECHNICAL COMMITTEE : Lubricants And their Related Products, PCD 25

To,

All concerned

Dear Madam/Sir,

The following document has been prepared by the Lubricants And their Related Products Sectional Committee, PCD 25. Please [click here](#) to view the document.

Document Number : PCD 25 (26883) WC

Title of the document : MARQUENCHING OILS SPECIFICATION

Document Type : Revision of Indian Standard (IS 4543 : 1977)

This document has following salient features which may require specific attention for your valuable comments:

- 1) Marquenching is a steel hardening process to produce finished products of high precision and quality from relatively less expensive low alloy steels. The finished products include gears, tools dies, bearing races, etc. The process of marquenching essentially consists of rapid hot quenching of the finished products in baths maintained at about 200 °C to ensure temperature equalization throughout the steel before conversion to the martensite structure during subsequent air or water cooling.*
- 2) This second revision has been carried out to incorporate the following major changes: a) The oil suitable for marquenching should have a high and constant quench rate along with satisfactory steel hardening characteristics. Hence, a performance test based on a Quencher with Cooling Curve analysis has been included in the requirements. It should have high flash point and low volatility to minimize fire hazards. b) Globally, marquenching oils are specified and marketed on the basis of the kinematic viscosity at 40 °C. Additionally, viscosity index of a quenching oil is directly related to its performance, affecting its behaviour over varying temperatures. The base oils commonly*

used in the manufacture of quenching oils inherently have a sufficiently high viscosity index. Hence, the viscosity and viscosity index requirements of marquenching oils have been revised to reflect the representative viscosity.

Please examine the document and share your comments regarding further improvement in the document.

Last date for sharing the comments is : 06 January 2025

The comments should be shared in the prescribed template through this portal only; and the comments so received shall be taken up by the Sectional Committee for necessary action. For any other query, please write an email at pcd@bis.gov.in to the undersigned at Bureau of Indian Standard, Manak Bhawan, 9, Bahadur Shah Zafar Marg, New Delhi.

In case no comments are received, we would presume your approval of the documents. However, in case we receive any comments on the document, the same shall be put up to the Sectional Committee for necessary action.

Thanking You,

**Yours faithfully,
(CHINMAY DWIVEDI)
Head (Petroleum, Coal and Related Products Department)
Email: pcd@bis.gov.in**



व्यापक परिचालन में मसौदा(दे)

हमारा सन्दर्भ : PCD 25(26883)WC

दिनांक : 07-11-2024

तकनीकी समिति : Lubricants And their Related Products Sectional Committee, PCD 25

प्राप्तकर्ता : रूचि रखने वाले सभी निकाय

महोदय/या,

निम्नलिखित मसौदा तैयार किया गया है :

प्रलेख संख्या : PCD 25 (26883) WC

शीर्षक :

कृपया इस/इन मानक(को)/संशोधन(नो) के मसौदे(दो) का अवलोकन करें और अपनी सम्मतियाँ यह बताते हुए भेजें कि यदि ये मानक(को) के संशोधन(नो) के रूप में प्रकाशित हो तो इन पर अमल करने में आपके व्यवसाय अथवा कारोबार में क्या कठिनाइयां आ सकती हैं।

सम्मतियाँ भेजने की अंतिम तिथि : 06 January 2025

सम्मतियाँ, यदि कोई हों तो, कृपया यहाँ क्लिक करके ऑनलाइन पोर्टल के माध्यम से ऊपर दी गयी अंतिम तिथि तक दर्ज कराएं।

यह/ये प्रलेख भारतीय मानक ब्यूरो की वेबसाइट www.bis.gov.in पर भी उपलब्ध है/हैं।

धन्यवाद।

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