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# Petroleum products and lubricants - Determination of the dropping point of grease with an automatic apparatus



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# Foreword

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This document was prepared by Technical Committee ISO/TC 28, *Petroleum and related products, fuels and lubricants from natural or synthetic sources*.

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# Introduction

The dropping point of lubricating grease is the temperature at which grease passes from a semi-solid state to a liquid state under test conditions.

This change of state is typical of greases that contain organic thickeners (soaps mainly) exhibiting phase changes and softening when the temperature is increased. Non-soap greases (like bentonite or silica greases) are described as “not fusible”, i.e. have no dropping point. Upon heating, they can separate oil.

Results of the dropping point test are indicative of the maximum temperature at which grease can be heated without complete liquefaction or oil separation. The dropping point is a useful indication of the grease type. For soap-based greases, it is related to the nature of the cation. At equivalent cation, complex soap-based greases have dropping points higher than that of simple soap-based greases. This characteristic can be used for manufacturing quality controls and for establishing product specifications.

The dropping point is not considered as having a direct relation with the service performance; dropping point is in no case the maximum temperature for use of grease.

Some cooperative testing has indicated that concordance exists between the results obtained using this document and the results obtained using ISO 2176[1] and ISO 6299[3].

This document is based on References [4] and [5].