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International Standard



6743/0

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INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

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**Lubricants, industrial oils and related products (class L) —  
Classification —  
Part 0 : General**

*Lubrifiants, huiles industrielles et produits connexes (classe L) — Classification — Partie 0 : Généralités*

First edition — 1981-09-15

**iTeh STANDARD PREVIEW**  
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ISO 6743-0:1981

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**UDC 665.765**

**Ref. No. ISO 6743/0-1981 (E)**

**Descriptors :** lubricants, lubricating oils, classification, generalities.

## Foreword

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Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 6743/0 was developed by Technical Committee ISO/TC 28, *Petroleum products and lubricants*, and was circulated to the member bodies in August 1980.

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No member body expressed disapproval of the document.

# Lubricants, industrial oils and related products (class L) — Classification — Part 0 : General

## 1 Scope and field of application

This part of ISO 6743 establishes the general classification system which applies to lubricants, industrial oils and related products, designated by the prefix letter "L".

Within this class L, 18 families of products are defined according to application in order to cover, as far as possible, all the applications for which lubricants, industrial oils and related products are used.

The detailed classification of each family will be given in subsequent parts of ISO 6743 as the need arises.

The classification concerns only new products.

## 2 Reference

ISO 3448, *Industrial liquid lubricants — ISO viscosity classification*.

## 3 Explanation of symbols

**3.1** The detailed classification of a family is established by defining the categories of products which are required for the main applications of the family. Each detailed classification is presented in a standard format applicable to all the families of class L for which a detailed classification is desired.

**3.2** Each category is designated by a symbol consisting of a group of letters, which together constitute a code.

**NOTE** — The first letter of this code identifies the family of the product considered, but any following letters taken separately have no significance of their own.

The designation of each product can be supplemented by the addition of viscosity grades according to ISO 3448 or NLGI<sup>1)</sup> grades for greases.

**3.3** In this classification system, products are designated in a uniform manner. For example, a particular product may be designated in complete form, i.e. ISO-L-AN 32, or in an abbreviated form, i.e. L-AN 32, the number indicating the viscosity grade according to ISO 3448.

1) NLGI : National Lubricating Grease Institute. This Institute (USA) has classified greases according to their consistency as measured under prescribed conditions as the penetration level of a standard cone (this penetration test method is described in ISO 2137). This classification is as follows :

| NLGI class | Worked penetration range (60 double strokes) |
|------------|--|
| 000        | 445 to 475                                   |
| 00         | 400 to 430                                   |
| 0          | 355 to 385                                   |
| 1          | 310 to 340                                   |
| 2          | 265 to 295                                   |
| 3          | 220 to 250                                   |
| 4          | 175 to 205                                   |
| 5          | 130 to 160                                   |
| 6          | 85 to 115                                    |

**Classification of lubricants, industrial oils and related products —  
Subdivision in families according to application**

| Code letter | Application  | Reference to the part giving detailed classification |
|-------------|--|--|
| A           | Total loss systems.....                                      | .....Part 1 <sup>1)</sup>                            |
| B           | Mould release  |  |
| C           | Gears  |  |
| D           | Compressors (including refrigeration and vacuum pumps) ..... | .....Part 3 <sup>1)</sup>                            |
| E           | Internal combustion engine                                   |  |
| F           | Spindle bearings, bearings and associated clutches .....     | .....Part 2 <sup>1)</sup>                            |
| G           | Slideways  |  |
| H           | Hydraulic systems.....                                       | .....Part 4 <sup>1)</sup>                            |
| M           | Metal working  |  |
| N           | Electrical insulation  |  |
| P           | Pneumatic tools  |  |
| Q           | Heat transfer  |  |
| R           | Temporary protection against corrosion                       |  |
| T           | Turbines   |  |
| U           | Heat treatment   |  |
| X           | Applications requiring grease                                |  |
| Y           | Other applications   |  |
| Z           | Steam cylinders  |  |

1) In preparation.

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