

Oil for metal processing

LAPENOMIL LLA and LLD

LAPENOMIL LLA and LLD are a mixture of suitably matched hydrorefined mineral oils, improved by suitably selected composition of additives, including active ingredients that improve lubrication properties as well as oxidation resistance of the oil. It features a limited content of aromatic hydrocarbons.

Oils of LAPENOMIL group do not include active chlorine.

Recommended for honing, wear-in, final smoothing processing as well as for processing of precise steel, cast iron and colour metal workpieces and alloys.

Features:

LAPENOMIL LLA and LLD Oils are designed for application in undiluted form. Viscosity selection depends on processing conditions.

No.	Requirements	Research method by	Unit	Value	
				LLA	LLD
1.	kinematic viscosity at 20 ⁰ C	ASTM D-445	mm ² /s	4,5-6,0	
2.	kinematic viscosity at 50 ⁰ C	ASTM D-445	mm ² /s		20,0-22,0
4.	flash point	PN-EN ISO 2592	⁰ C	84-96	210-232
5.	Examination of the corrosive action on steel plates at 50 ⁰ C/24h	PN-85/C-04093		remains resistant	
5.	Examination of the corrosive action on steel plates at 100 ⁰ C/3h	PN-85/C-04093			remains resistant
6.	Saponification number	ASTM D 94	mgKOH/g	0,9-2,2	6,5 - 8,9
7.	Acid number	ASTM D 974	mgKOH/g	0,21-0,27	0,40-0,70
8.	Chlorine content		%	0	

The above data are typical process tolerance values for a production batch, they do not constitute a technical specification, and they are subject to change due to continual product research and development.

Specifications, classifications:

ISO - L-MHB

Packaging:

In bulk

Storage:

All packages of the products should be stored indoors. In cases when the drums are stored in the open air where they can be exposed to atmospheric conditions – rains, they should be placed in a horizontal position in order to avoid inrush of water to a container and to prevent label damaging; they should be covered with tarpaulin.

The products should not be stored at the temperature above 60 °C and in the places where solar radiation is very strong or temperatures low, below 0 °C. The expiry date is 3 years if the storage conditions are satisfied.

Health, Industrial Safety and the Environment:

Information concerning safety is included in the material safety data sheet of the product (MSDS safety sheet). It contains detailed information on possible threats, warnings, first aid as well as the impact on the environment and ways of utilization of the used products.

LOTOS Oil SA and the cooperating companies do not take responsibility for misuse of the product or the use with the violation of the precautions given. Before using the product for other than recommended purposes, seek advice in the local LOTOS Oil SA office.

The information provided in this data sheet is not intended to constitute an offer within the meaning of the Act of 23rd April 1964 - Civil Code. LOTOS Oil S.A. bears no responsibility for whatever effects of use, particularly in trade and investment decision making, of information contained herein. Any data contained in the data sheet are typical process tolerance values and they are subject to slight changes due to process features as well as continual product research and development. Information provided in this document may undergo changes. LOTOS Oil S.A. is not responsible for the product availability.

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