

# PRIMIUM SUPER M 93

Special high-temperature oil for conveyor chains in biaxial film stretching machines



## Benefits for your application

- Reduced chain wear resulting in longer service lifetime
- Energy related cost savings from reduced friction effect
- Lower oil consumption due to high oxidation stability and low evaporation losses at higher temperatures
- Low residue formation results in simplified maintenance procedures
- Excellent performance under high chain speeds and temperatures

## Description

Film stretching machines normally operate continuously. In view of these demanding operating conditions the chain oil is of critical importance to the equipment's economic efficiency. PRIMIUM SUPER M 93 has been designed to comply with these stringent production requirements.

The additives contained in PRIMIUM SUPER M 93 focus on:

- low chain wear with reduced friction values
- low rail wear with reduced friction values
- good oxidation stability at high temperatures
- low evaporation losses at high temperatures
- minimum change in viscosity at the friction point during longer periods of standstill
- low residue formation
- good pumpability in central lubrication systems

Owing to its unique composition, PRIMIUM SUPER M 93 offers the following advantages to operators of film stretching equipment:

- low operating costs
- low maintenance costs due to longer service life of chains
- high economic efficiency due to the high availability of the installation, high speeds and quality of the produced film at constant production conditions

PRIMIUM SUPER M 93 is compatible and miscible with **Klübersynth CZ 2-85, Klübersynth CH 2-280 and PRIMIUM SUPER.**

## Application

PRIMIUM SUPER M 93 is a fully synthetic high-temperature oil for the lubrication of conveyor chain systems in biaxial film stretching machinery. This special chain oil has been approved by Brückner Maschinenbau and successfully used by the leading manufacturers of film stretching equipment for many years.

## Application notes

PRIMIUM SUPER M 93 is a NSF H2-registered product and approved for use for the manufacture of packing films in the food-processing and tobacco industries.

## Material safety data sheets

Material safety data sheets can be requested via our website [www.klueber.com](http://www.klueber.com). You may also obtain them through your contact person at Klüber Lubrication.

Pack sizes	PRIMIUM SUPER M 93
Canister 5 l	+
Canister 20 l	+
Drum 200 l	+



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Product data	PRIMIUM SUPER M 93
Article number	067111
Chemical composition, type of oil	ester oil
Lower service temperature	0 °C / 32 °F
Upper service temperature	250 °C / 482 °F
Appearance	clear
Colour space	yellow
Kinematic viscosity, DIN 51562 pt. 01/ASTM D-445/ASTM D 7042, 40 °C	approx. 300 mm <sup>2</sup> /s
Kinematic viscosity, DIN 51562 pt. 01/ASTM D-445/ASTM D 7042, 100 °C	approx. 26 mm <sup>2</sup> /s
Density, DIN 51757, 20 °C	approx. 0.97 g/cm <sup>3</sup>
Viscosity index, DIN ISO 2909	>= 100
Flash point, DIN EN ISO 2592, Cleveland, open-cup apparatus	approx. 270 °C
Minimum shelf life from the date of manufacture - in a dry, frost-free place and in the unopened original container, approx.	36 months

## Klüber Lubrication – your global specialist

Innovative tribological solutions are our passion. Through personal contact and consultation, we help our customers to be successful worldwide, in all industries and markets. With our ambitious technical concepts and experienced, competent staff we have been fulfilling increasingly demanding requirements by manufacturing efficient high-performance lubricants for more than 80 years.

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