

Advanced Quenchants from FUCHS: For Performance and Peace of Mind

MOVING YOUR WORLD



Quenchants newly defined

Following continuous development and process optimization together with experts from the quenching industry, FUCHS presents a complete series of quenching products based on mineral oils.

The THERMISOL QH MC series are thermally stable, high-performance quenching oils based on high-quality, low-evaporation and low-aromatic hydrocracked oils.

MC – the key to this is a special production process in which natural mineral oil is hydrocracked with H₂ (hydrogen) at high pressures and temperatures. This generates cost-effective base oils which are comparable to synthetic oils. The THERMISOL QH MC series of products contain these oils along with high quality additive packages.



Exceptional performance

All the benefits at a glance

Performance:

- Short vapour phase results in uniform cooling and minimal warping
- Various viscosities offer the most suitable cooling characteristics
- Anti-oxidants ensure outstanding ageing stability
- Generates almost residue-free surfaces

Universal application:

- From heat treatment shops with open baths to fully automatic continuous throughput furnaces with integral baths

Safety:

- High flashpoint
- Minimal flaming
- Low evaporation
- Low-aromatic

Consumption:

- Minimum drag-out losses
- Low combustion and evaporation losses

Products for various quenching oil applications

THERMISOL QH 10 MC

THERMISOL QH 10 MC is recommended for the hardening of bolts and springs, for the hardening of components directly after forging, for the tempering of semi-finished parts and for many other applications.

Outstanding surface hardness can be achieved by using THERMISOL QH 10 MC.

THERMISOL QH 10 MC can be used in both open and closed heat treatment lines.

We recommend that THERMISOL QH 10 MC is used for continuous heat treatment processes.

THERMISOL QH 30 MC

THERMISOL QH 30 MC is suitable for the hardening of alloyed and unalloyed case-hardened steels, heat-treatable steels and tool steels. It can also be used with forged components, thin-walled mass-produced parts made of free-cutting steel, large-scale warp-prone components, gearbox

parts and for a whole range of other applications. The carefully selected components in THERMISOL QH 30 MC offer extremely clean component surfaces after heat treatment. We recommend that THERMISOL QH 30 MC is used for continuous heat treatment processes.

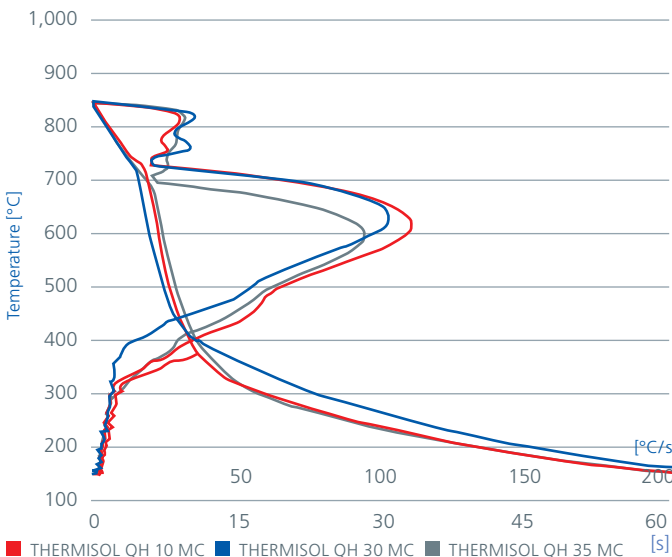
THERMISOL QH 35 MC

THERMISOL QH 35 MC is a high-performance quenching oil for a broad range of applications. It is particularly suitable for use in quenching shops in which components of various alloys and with greatly differing sizes and geometries are hardened. The product has a high flashpoint and extremely low evaporation. The product's formulation guarantees long service life and excellent process reliability.

THERMISOL QH 35 MC is recommended for use in continuous and batch hardening processes and for both open and closed lines.

Typical characteristics	Colour DIN ISO 2049 [ASTM]	Density at 15 °C DIN 51 757 [g/ml]	Viscosity at 40 °C DIN 51 562-1 [mm ² /s]	Flashpoint DIN ISO 2592 [°C]	Evaporation losses acc. to Noack, 250 °C, 1h, DIN 51 581-1 [%]
THERMISOL QH 10 MC	0.5	0.84	11	172	61.1
THERMISOL QH 30 MC	0.5	0.84	26	220	16.7
THERMISOL QH 35 MC	3	0.85	37	236	7

IVF-Quenchtotest according to FLV-A-18* and based on ISO 9950



* FUCHS LUBRICANTS GERMANY GmbH test method

	THERMISOL QH 10 MC	THERMISOL QH 30 MC	THERMISOL QH 35 MC
Quenchant test temperature [°C]	40	40	40
Max. cooling rate [°C/s]	106.81	101.46	92.79
Temperature at maximum cooling rate [°C]	619.69	634.27	603.09
Cooling rate at 300 °C [°C/s]	6.67	5.58	8.25
Time [s] to			
600 °C	6.76	5.93	7.23
500 °C	7.93	7.33	8.49
400 °C	9.93	10.59	10.74
300 °C	17.38	22.95	16.84
200 °C	38.93	44.53	38.94

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Important: The detailed instructions for use of our products can be found under www.fuchs.com/operation-notes