

Iloquench™ 749

Hot quenching oil

Description

Castrol Iloquench™ 749 is a premium quality, high viscosity quenching oil. It is based on a selected highly refined paraffinic mineral oil, containing an additive package that provides excellent detergency properties, thermal stability and accelerated quenching characteristics compared to straight mineral quenching oils.

AFNOR NFT 60-512: class UHE

Application

Iloquench 749 has been designed for use in multi stage quenching operations to obtain martensitic structures with large carburized or carbonitrited steel parts of low hardenability, such as axle shafts, transmission components and gears.

Iloquench 749 is also suitable for quenching of hard carbon steel strip, circular saw blades and springs as well as sensitive steel parts with low hardenability to avoid distortion and quenching cracks.

Iloquench 749 is recommended for use in hot quenching open batch or integrated quench tanks.

Conditions of Use

Temperature of use open to atmosphere:	60 - 100 °C
Temperature of use under controlled atmosphere (inert gas):	80 - 200 °C

Avoid water entry into storage tanks or quench baths.

Advantages

- Accelerated quenching speed
- Low calefaction avoids incomplete transformations
- Extended boiling range favors high levels of hardness at the surface and under hardened layer while minimising distortions
- High flash point and fire point allows a safe use at high temperature
- Highly resistant to oxidation and thermal degradation thereby leading to a longer life in service
- Very good stability guarantees reliable performance and a consistent high quality surface finish

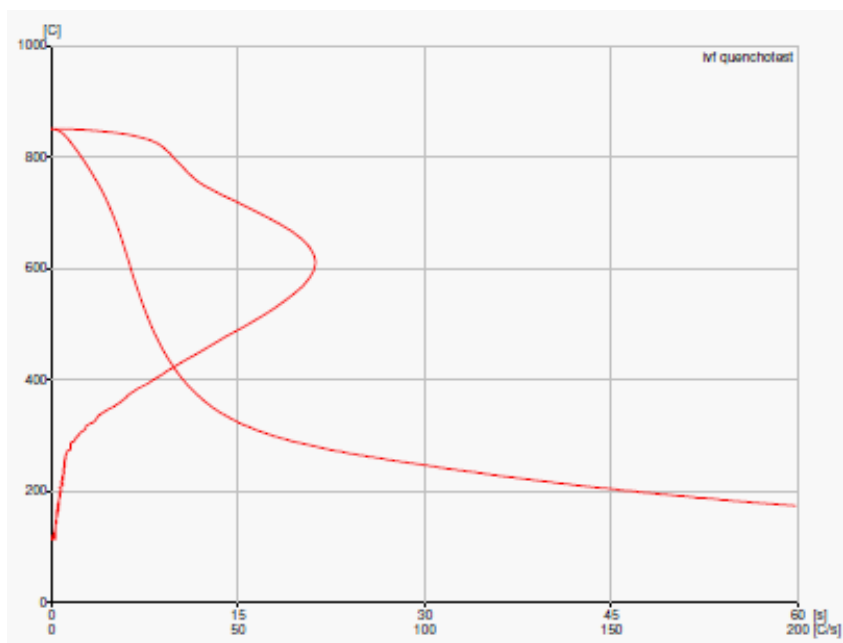
Typical Characteristics

Description	Test Method	Unit	Value
Appearance	Visual	-	Clear brown fluid
Density @ 15 °C	ASTM D4052 / ISO 12185	g/ml	0.91
Kinematic Viscosity @ 40 °C	ASTM D445 / ISO 3104	mm ² /s	180
Kinematic Viscosity @ 100 °C	ASTM D445 / ISO 3104	mm ² /s	17
Flash Point, COC	ASTM D92 / ISO 2592	°C	> 270
Fire Point	ASTM D92 / ISO 2592	°C	300
Water Content	ASTM D1744 / ISO 6296	ppm	< 300
Acid Value (Potentiometric)	NFT 60-112	mg KOH/g	< 0.5
Drasticity @ 150 °C			
Transition temperature - Theta 1 (Vaporization-Boiling)	NFT 60-178	°C	> 620
Transition temperature - Theta 2 (Boiling-Convection)	NFT 60-178	°C	335 - 385
Castrol Index @ 150 °C	-	-	15

Subject to usual manufacturing tolerances.

Additional Information

Quenching Characteristics @ 60 °C (IVF Quenchtest, ISO 9950): Max cooling rate 71°C @ 611 °C



Storage

To avoid product deterioration always keep the container/drum tightly sealed. Store the product in a cool, dry place away from direct sunlight. Prevent exposure to frost and avoid water ingress. For optimum product stability, it is preferable to store the product indoors between 5°C and 45°C / 41°F and 113°F.

For more details, please refer the product safety data sheet.

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