

# Performance Par Excellence

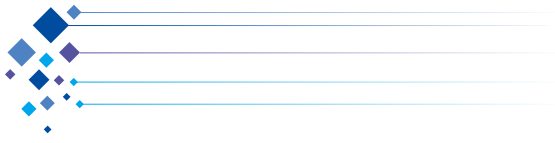
**gandhar**  
Stay Ahead



Quenching Oils

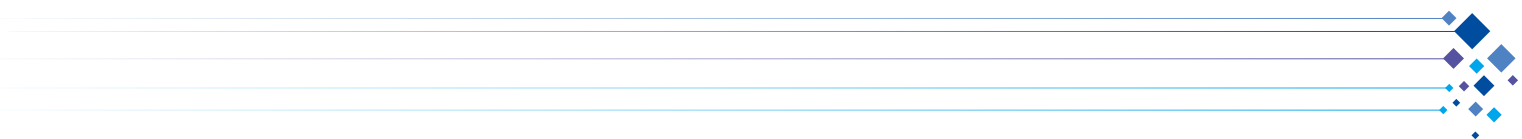
Industrial Oils

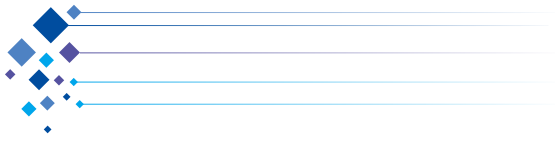
 **divyol**  
solutions within solutions



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## WIDE RANGE OF INDUSTRIAL OILS



## QUENCHING OILS

### Enhancing the mettle of metal

These oils are used to control quenching of metals to increase their hardness, ductility, and strength while ensuring that surfaces are clean and free from spots and patches. Divyol quenching oils deliver metallurgical results in compliance with industry-specific health, safety, and environment standards.



# DIVYOL QUENCHING OILS

## 39I / 39L / 39LI / 42L / 43L / 45HL

**Applications:**

Divyol Quenching Oils are a series of heat treatment fluids, each with a different viscosity, for various metal quenching objectives. The series includes Divyol Quenching Oil 39I, 39L, 39LI, 42L, 43L and 45HL. Of these, 39I and 39L are formulated using Group II base oil and are general purpose quenching oils. 39L is of low viscosity. 39LI has higher flash point and low volatility. 42L is a compounded type quenching oil with low viscosity. 43L and 45HL are additive type quenching oils with low viscosity range.

**Standards:**

Divyol Quenching Oils are blended using solvent refined base oil with specially selected additives and conform to performance specifications as per BIS:2664-1980 (reaffirmed 2014) compounded type.

**Advantages:**

Divyol Quenching Oils enable accelerated quenching through proper and controlled cooling and impart uniform hardness to quenched components. These oils possess excellent thermal and oxidation stability. They also have high flash and fire properties. Minimal losses due to evaporation, hence reduced top-ups and low volatility hence reduce consumption, making them cost effective. They also reduce sludge formation and minimize oil thickening making the oils effective for longer periods.

**Typical properties:**

Sr. No.	Characteristics	Test Method	Divyol Quenching Oils					
			39I	39L	39LI	42L	43L	45HL
1	Appearance	Visual	Bright and clear	Bright and clear	Bright and clear	Bright and clear	Bright and clear	Bright and clear
2	Flash point COC, °C, min.	ASTM D 92	195	190	200	190	180	190
3	Pour point,, °C max.	ASTM D 97	-10	-10	-10	-10	-10	-10
4	Kinematic viscosity at 40 °C, cSt, min.	ASTM D 445	30.47	24.17	29.07	22.85	23.11	23.34
5	Viscosity index, min.	ASTM D 2270	95	95	110	90	90	90

The above properties are typical values and do not constitute specification of the product.

Disclaimer: Gandhar makes no warranties, representation or conditions of any kind expressed or implied for use with respect to these products. Final determination of suitability of the product for the application contemplated by the users is solely their responsibility.

# DIVYOL QUENCHING OILS

## 39 / 40 / 42 / 43 / 44

**Applications:**

Divyol Quenching Oils are a range of heat treatment oils, each with a different set of properties, for various metal quenching objectives. The range includes Divyol Quenching Oils of grades 39, 40, 42, 43 and 44. Of these, grades 39 and 40 are general purpose quenching oils with inherent oxidation stability. Grade 39 has lower viscosity than grade 40. Quenching Oil 42 is designed for accelerated quenching and has special polar additives to help strengthen metal hardness uniformly, resulting in greater durability. Grade 43 oil is an additive type blend which helps achieve the average quench meter result of 14 sec. Divyol Quenching Oil grade 44 is also an additive type blend that has higher viscosity and helps minimize distortion.

**Standards:**

Divyol Quenching Oils are formulated using solvent refined base oil and select additives. All the grades in the series conform to performance standards as per BIS: 2664-1980 (reaffirmed 2014) compounded type. Divyol Quenching Oil 43 and 44 meet specifications of IS:2664/93.

**Advantages:**

Divyol Quenching Oils grades 39, 40, 42, 43 and 44 are non-corrosive and non-toxic. They facilitate quenching through proper and controlled cooling and help achieve uniform hardness of quenched components. These oils possess excellent thermal and oxidation stability as well as high flash and fire points. They also have low volatility which results in reduced consumption. There is also lower oil loss due to reduced carry-over. The entire range is suitable for use in large scale automation.

**Typical properties:**

Sr. No.	Characteristics	Test Method	Divyol Quenching Oils				
			39	40	42	43	44
1	Appearance	Visual	Bright and clear	Bright and clear	Bright and clear	Bright and clear	Bright and clear
2	Flash point COC, °C, min.	ASTM D 92	200	220	195	200	220
3	Pour point, °C, max.	ASTM D 97	-6	-6	-6	-6	-6
4	Kinematic viscosity at 40 °C, cSt min.	ASTM D 445	32	68	32	30	40
5	Viscosity index, min.	ASTM D 2270	95	90	95	95	95
6	Copper strip corrosion, 3 hrs. at 100 °C, max.	ASTM D 130	1	1	1	1	1

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## DIVYOL QUENCHING OIL MF

### Applications:

Divyol Quenching Oil MF is a moderately fast quenching oil used for the quenching of medium carbon steel and alloy steel of medium sized components.

### Standards:

Divyol Quenching Oil MF is a proprietary grade product - a specially formulated blend of high quality hydro treated base stocks.

### Advantages:

Divyol Quenching Oil MF is an efficient quenching solution that enables controlled and moderately fast cooling and imparts uniform hardness to components without causing distortion. The blend has excellent thermal and oxidation stability besides high boiling points, high flash and fire points. It also has low volatility which results in reduced consumption and minimum drag. Its strong resistance to oxidation leads to longer service life.

### Typical properties:

Sr. No.	Characteristics	Test Method	Divyol Quenching Oil MF
1	Appearance	Visual	Bright and clear
2	Flash point COC, °C, min.	ASTM D 92	180
3	Pour point, °C, max.	ASTM D 97	-9
4	Kinematic viscosity at 40 °C, cSt, min.	ASTM D 445	14 – 18
5	Viscosity index, min.	ASTM D 2270	95
6	TAN mg KOH/gm, max.	ASTM D 664	0.2

The above properties are typical values and do not constitute specification of the product.

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**Gandhar Oil Refinery (India) Limited**

ISO 9001:2015, ISO 14001:2015, ISO 45001:2018, GMP Certified, NABL Accreditation and Government Recognized Three Start Export House

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