



## Daphne Plastic Quench RP

~Water Soluble Quenching Oil~

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### 1. Application:

- Daphne Plastic Quench RP is excellent water-soluble quenching oil which is consisted of poly-alkylene glycol and rust inhibitor.
- Daphne Plastic Quench RP makes a good effect on rust prevention, so if cutting oil is mixed, rust is unlikely to occur.
- Daphne Plastic Quench RP makes a good effect on quenching crack prevention because it has a good performance for cooling ability under 250°C.
- Daphne Plastic Quench RP has an excellent anti rotting, so this oil has less deterioration due to rot in summer.
- Daphne Plastic Quench RP is suitable for Induction hardening and forging hardening-immersion quenching.

### 2. Guideline of concentration

#### (1) Induction Hardening

Carbon Steel	Rear axle shaft	5 ~ 10 %
	Crank shaft	5 ~ 10 %
	Cam shaft	5 ~ 10 %
	Steering rack	10 ~ 15 %
	Gear	10 ~ 15 %
Low Alloy Steel	Rear axle shaft	10 ~ 15 %
	Gear	12 ~ 18 %

#### (2) Carburizing

Carbon Steel	Bolt	7 ~ 12 %
	Connecting rod	15 ~ 20 %
	Crank shaft	15 ~ 20 %
Alloy Steel	Shoe	10 ~ 15 %
	Steering knuckle arm	15 ~ 20 %

### 3. Attention

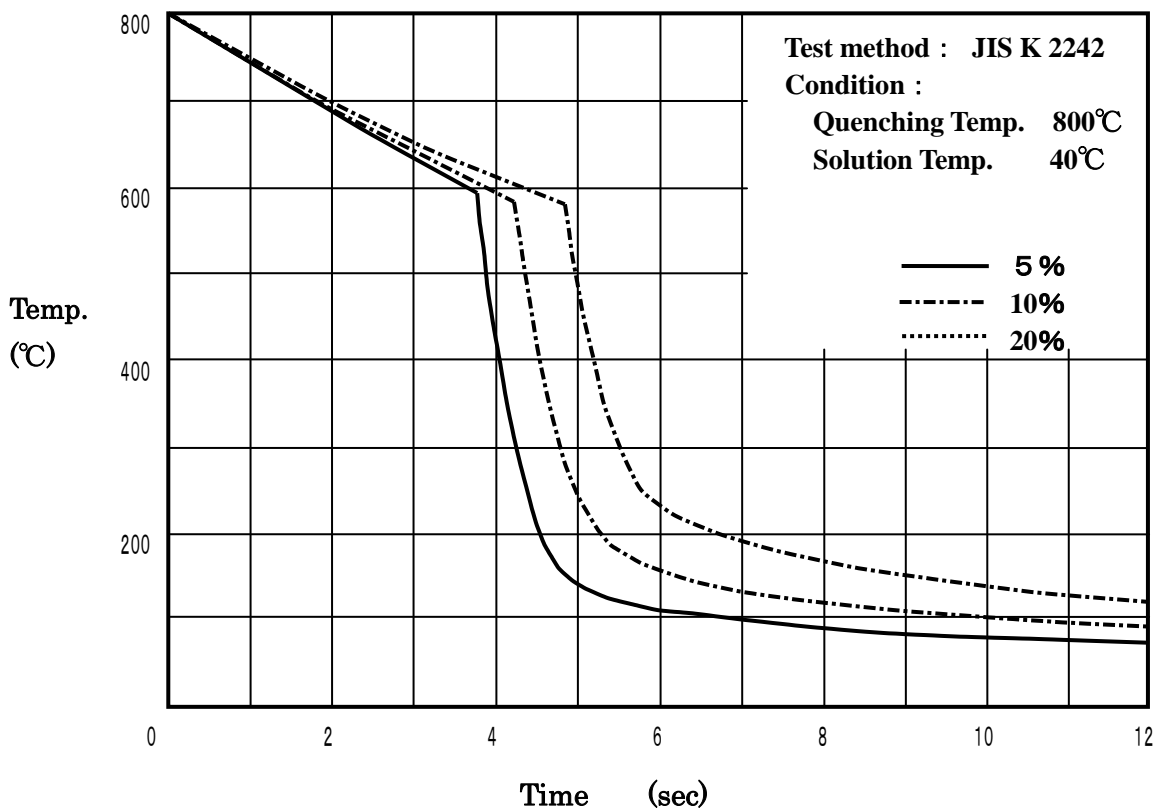
- Emulsion temperature is suitable between 30°C and 45°C. Polymer resin can separate over 65°C.
- Emulsion concentration is controlled by refract meter and pH paper. Viscosity need to be measured regularly to manage the cooling ability precisely.

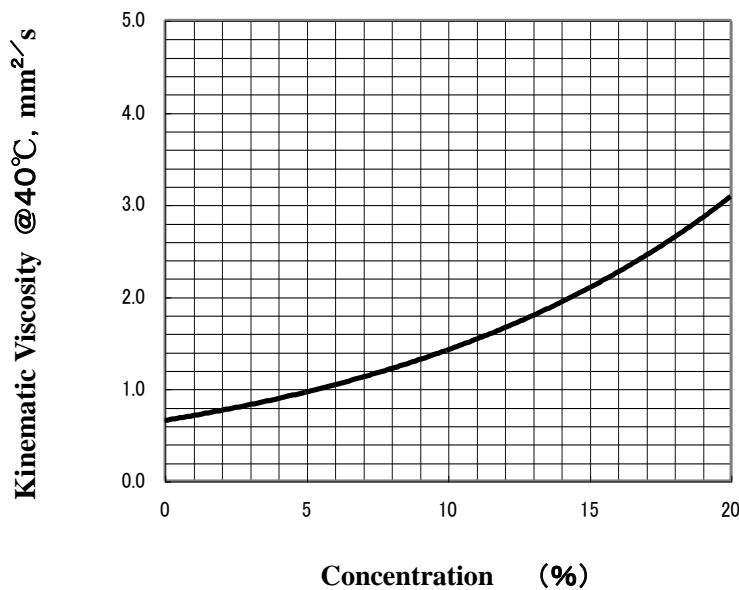
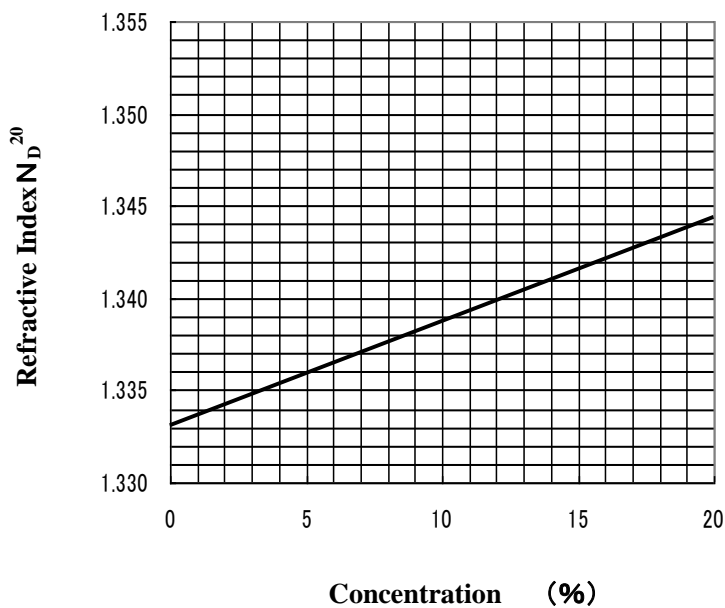
- Please remove a mixture oil and the scale to suppress the cooling irregularity
- High viscous resin may be left on the processing work surface and the work may be sticky when using it by high viscosity. In this case, please clean it up by shower washing or dipping to water or warm water. The washing water is reused as make-water.

### Typical properties

Concentration	Undiluted solution	5%	10%	15%	20%
Density @15°C	1.069	1.003	1.006	1.010	1.013
Kinematic Viscosity @40°C mm <sup>2</sup> /s	127.0	1.005	1.469	2.135	2.958
pH	10.4	9.7	9.9	9.9	9.9
Refractive Index @20°C	1.3928	1.3360	1.3387	1.3415	1.3443

### Cooling curve





- Based on available information, this product is not expected to produce adverse effects on health when used for the intended application and the recommendations provide in the Material Safety Data Sheet (MSDS) are followed.
- MSDS is available upon request through your sales contract office, or via the internet.  
<http://www.idemitsu.co.jp/lube/>
- Due to continual product research and development, the information contained herein is subject to change without notification.

**Idemitsu Kosan Co., Ltd.**  
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