

# DAPHNE PLASTIC QUENCH RP

## Features & Characteristics

- (1) Daphne Plastic Quench RP is water soluble quenching polymer composed of synthetic glycol.
- (2) Excellent rust preventive property and difficult to rust by contamination of cutting oil.
- (3) Great protective property of quenching crack due to good cooling control effect under 250 °C
- (4) Suitable for induction hardening and immersion quenching, forging quenching.
- (5) Good resistance to degradation by rotten in summer because of good anticorrosion property.

## Guideline of concentration

Quenching method	Composition	Parts	Concentration
Induction Hardening	Carbon Steel	Rear axle shaft	5~10%
		Crank shaft	5~10%
		Cam shaft	5~10%
	Low alloy steel	Steering rack	10~15%
		Gear	10~15%
		Rear axle shaft	10~15%
Immersion quenching	Carbon steel	Gear	12~18%
		Bolt	7~12%
	Alloy steel	Connecting rod	15~20%
		Crank shaft	15~20%
		Shoe	10~15%
		Crawler link	15~20%
		Knuckle arm	15~20%

## Attention

- (1) Suitable temperature of solution is from 30 °C to 45 °C. Polymer resin can separate at temperature above 65 °C.
- (2) Refract meter is used to operate concentration of solution. And more accurate operation of cooling property is possible if you fix the refractive index by measuring kinematic viscosity.
- (3) To control uneven cooling, remove the contaminate oil and scale.
- (4) If the surface of workpiece become sticky by remained high viscosity polymer, wash by shower or immersion to (hot) water immersion. And cleaning solution can be recycled as makeup water.

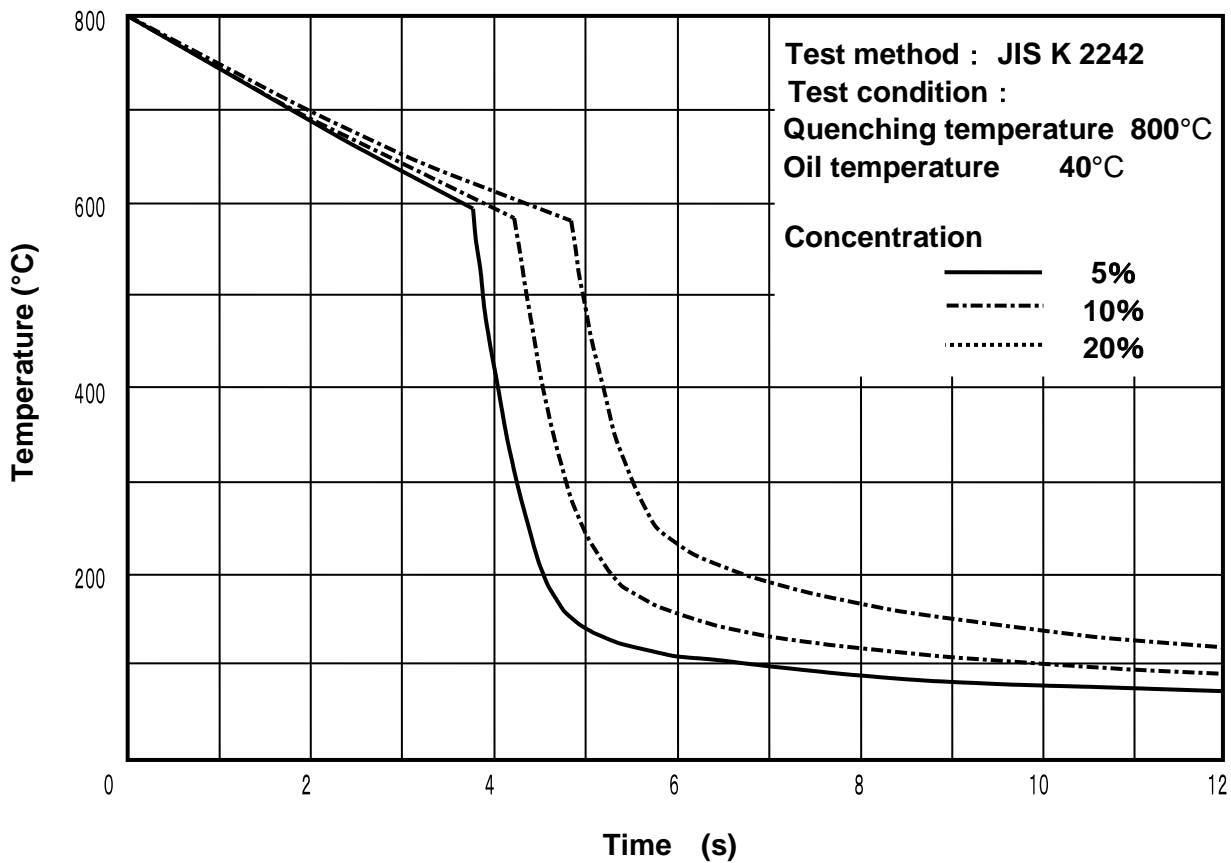
## Package

200L D/M, 20L P/L

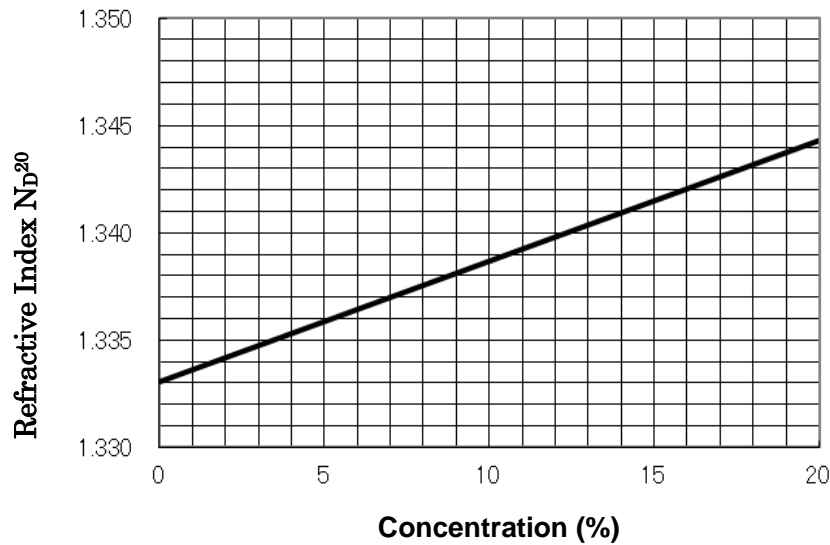
## Typical properties

Test Item	Test Method	Unit	RP Stock Solution	5%	10%	10%	10%
Density at 15°C	ASTM D4052	g/cm <sup>3</sup>	1.069	1.003	1.006	1.010	1.013
Viscosity at 40°C	ASTM D445	mm <sup>2</sup> /s	127.0	1.005	1.469	2.135	2.958
pH	ASTM D1293	-	10.4	9.7	9.9	9.9	9.9
Refractive index @20°C	ASTM D1218	-	1.3928	1.3360	1.3387	1.3415	1.3443

## Cooling curve



## Refractive Index - Concentration diagram



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

**Malaysia**  
Idemitsu Lube (Malaysia) Sdn. Bhd.

**Kuala Lumpur Branch**  
Tel: (60) 3 6157 9529 Fax: +60 3 6157 9636

**Johor Branch**  
Tel: (60) 7 550 0460 Fax: +60 7 550 0466

**Penang Branch**  
Tel: (60) 4 501 2268 Fax: +60 4 501 2269

**Singapore Branch**  
Tel: (65) 6256 6843 Fax: +65 6256 6384

**Thailand**  
Apollo (Thailand) Co., Ltd  
Tel: (66) 3 845 6900 Fax: (66) 3 821 0099

**Vietnam**  
Idemitsu Lube Vietnam Co., Ltd.  
Tel: (84) 31 3246 508 Fax: (84) 31 3246 509

**India**  
Idemitsu Lube India Pvt. Ltd.  
Tel: (91) 11 66794200 Fax: (91) 11 66794259

**Indonesia**  
PT. Idemitsu Lube Techno Indonesia  
PT. Idemitsu Lube Indonesia  
Tel:(62) 21 8997 7630

**Philippines**  
Idemitsu Lubricants Philippines Inc.  
Tel: (63) 2 8 282 855 Fax: (63) 2 8 524 0617