THERMOIL

Quenching oils

DESCRIPTION

This range of quenching oils is manufactured from high-quality base stock and progressive foreign additives. They allow for producing high-strength steel workpieces.
The oils exhibit high thermal and chemical stability (extended oil service life) and high resistance to evaporation (allow for using in open quenching bath system); do not produce hazardous substances during the quenching process; ensure high-quality hardening including that for large workpieces.

APPLICATIONS

Metal thermal processes requiring the use of high-performance oils. The products are used for cold (20-50°C) and hot (70-110°C) quenching of large and small workpieces or batch quenching, and reduce the risk of workpiece distortion.

BENEFITS

- **Resistance to evaporation**
  Low volatility promotes rapid vapor blanket collapse (first quenching stage) allowing for stress equalization, reducing distortion and cracking in the workpiece. Low volatility helps reduce oil consumption.

- **High thermal and chemical stability**
  The oils resist degradation and formation of deposits that change metal color. Chemical composition and performance level are maintained throughout the service life of oils.

- **Filterability**
  Scale and deposits are produced during the quenching process and can have a negative effect on workpieces: hinder heat transfer and change color. They promote oil oxidation and lead to workpiece distortion and cracking. Solid particles are rapidly removed through filters thanks to good pumping ability of the oils.

- **Good anti-foaming ability**
  Oils ability to separate air and prevent foam creation. Foam may lead to cooling capacity reduction and cause intensive oxidation.

- **Optimum viscosity characteristics**
  Optimum viscosity characteristics prevent lubricant losses during workpiece removal from the bath.

- **Water content**
  Quenching oils contain insignificant amounts of water, while high water content may have a negative effect on heat treatment process: may cause workpiece cracking, excessive foaming or increased risk of fire.

SPECIFICATIONS

THERMOIL quenching oils comply with the requirements of:

AVTOVAZ

TYPICAL PROPERTIES

THERMOIL		
Viscosity, cSt @ 40°C	25	38
VI	90	91
Flash Point COC, °C	214	218
Flash Point, PMCC, °C	192	216
Sulphated Ash, %	0.07	0.07
Saponification, mg KOH/g	0.25	0.25
Density @ 20°C, kg/m^3	864	873

HEALTH AND SAFETY

Proper industrial and personal hygiene, as well as proper application of THERMOIL will not produce adverse effects on health. The lubricants refer to Hazard Class 4, and to Hazard Class 3 as oil mist (GOST 12.1.007). Avoid contact with skin. Use protective gloves. In case of contact, flush immediately with water and soap.

Use the product according to its intended purpose. Quenching oils are flammable liquids with flash point not less than 180°C (GOST 12.1.044). Observe all of laws, rules, regulations and agreements relevant to the environment. Collect and deliver exhaust oils to exhaust fluids reception station. Do not discharge the remaining and exhaust oil into groundwater, watercourses, soil, sewerage or drainage systems.

Manufacturer: Gazpromneft-Lubricants Ltd., 125A Profsoyuznaya St., Moscow 117647 Russia. Gazpromneft Lubricants' Standard #84035624-015-2009.
For more information please contact our technical personnel: e-mail: Techservice@gazprom-neft.ru

22.10.2013