

# NYE RHEOLUBE 790G

A Synthetic Hydrocarbon-Based Wide-Temperature Grease for Bearings, Gear Trains, Gear Motors, Worm and Planetary Gears

A multi-functional, water and salt-water resistant grease using a high film strength synthetic hydrocarbon as base oil. Recommended temperature range: -40°C to 125°C.

## PROPERTIES OF THE SYNTHETIC HYDROCARBONS

The "synthetic" hydrocarbon fluids are prepared from varying molecular weights of poly-1-decene. The resulting oils are chemically identical to the most useful components of the best petroleum oils, but possess singular purity and homogeneity compared with petroleums. They are highly stable against oxidation and provide a much broadened range of low and high temperature capability and lower volatility when compared with refined petroleum oils of comparable viscosity. Film strength, lubricity and wear prevention capability are excellent and can be fortified further for special needs with load carrying additives. The change of viscosity with temperature with these oils is significantly less than with naturally-derived hydrocarbons which minimizes the need for viscosity-index improvers.

## COMPATIBILITY WITH PLASTICS AND ELASTOMERS

Compared with ester-based synthetic lubricants, the synthetic hydrocarbons display a much-reduced tendency to attack such plastics as polycarbonates, polysulfones, polyphenylene oxides, and a-b-s resins. Also they have less tendency to swell certain vulnerable elastomers.

## TYPICAL PROPERTIES OF THE BASE OIL

Viscosity at	100°C	19.5 centistokes
	40°C	148 centistokes
	-20°C	10000 centistokes
Flash Point		260°C
Pour Point		-50°C
Viscosity Index		152

Nye Rheolube 790G

### TYPICAL PROPERTIES OF THE GREASE

Unworked Penetration	273
Worked Penetration, 60 strokes	328
Dropping Point	Over 260°C (Non-Melting)
Evaporation Loss, 24 hrs., 100°C	0.9%
Oil Separation, 24 hrs., 100°C	None
Specific Gravity at 25°C	0.89
Water Washout, 1 hr., 80°C	0%
Norma-Hoffman Bomb Oxidation Stability Conditions	100 hrs at 100°C.
Oxygen pressure drop	23.8 kPa (3.5 psi)
Copper strip corrosion, 24 hrs., 100°C	Slight tarnish 1A (No Corrosion)
Bearing Rust Test per ASTM D-1743	Pass
Low-Temperature Torque per ASTM D-1478, -30°C:	
Starting torque	2006 gm-cm
Running torque, 10 min.	649 gm-cm
Running torque, 1 hour	413 gm-cm
Flow-out at High Temperature, 30 min., 220°C	None
Four-Ball Wear Test per ASTM D-2266 (1200RPM, 40kg load, 1hr, 75°C)	Wear Scar: 0.69mm

### SPECIFICATIONS

The typical properties shown on this product data sheet should not be used as a basis for preparing specifications. Please contact **NYE LUBRICANTS, INC.** for assistance and recommendations pertaining to specification limits and requirements.

### SAFETY

NYE RHEOLUBE 790G is not known to cause harmful effects. However, thermal degradation can liberate toxic fumes. Avoid contamination of tobacco products, or heating the grease above 200° Celsius. Refer to our product Material Safety Data Sheet for detailed safety information.

### PACKAGING

One-pound jars, seven-pound pails, 35-pound pails, and 110-pound drums.

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