## Shell TONNA® Oil V

## High tackiness machine tool slideway lubricants

Shell TONNA® Oils V are specially designed for the lubrication of machine tool slides and tables. They are based on highly refined mineral oils and contain additives to enhance tackiness, anti-wear and stick-slip characteristics. They are specially recommended in cases where high adherence is required.

## Performance Features and Benefits

### Excellent slideway adhesion

The high tackiness agent content provides very effective adhesion to slideway surfaces, resisting wash-off by metalworking fluids and thus helping to reduce oil consumption and thereby giving more uniform working conditions for the machine.

### Ready separation and high compatibility with water-extendible cutting fluids

Separates readily from water-extendible metalworking oils allowing easy removal by skimming. The formulation prevents loss of performance in the presence of contamination.

#### Good frictional properties

"Stick-slip" problems are overcome, allowing more accurate positioning. This provides benefits of improved finished surface quality and dimensional accuracy of workpieces.

#### Good anti-wear performance

Provides anti-wear protection for slideways, gears, bearings and hydraulic system components.

## Excellent corrosion prevention characteristics

Provides effective protection of machine tool surfaces and components in the presence of water-extendible cutting fluids.

## Main Applications

## Machine tool slideways, tables and feed mechanisms

Developed for use on a wide range of materials used for machine tool slideway surfaces, including cast iron and synthetic materials. Shell TONNA® Oil V 68 is intended for horizontal slideways and can be also be used in the hydraulic and gearbox system. For vertical slides use Shell TONNA® Oil V 220.

Advice on applications not covered in this handbook may be obtained from your Shell representative.

# Specifications, Approvals, and Recommendations

Shell TONNA® Oils V meet the following specifications:

Cincinnati Machine P-50 (220), P-47 (68)

## Handling and Safety Information

For information on the safe handling, storage, or use of this product, refer to its Material Safety Data Sheet at http://www.epc.shell.com/. If you are a Shell Distributor, please call 1+800-332-6457 for all of your service needs. All other customers please call 1+800-237-8645 for all of your service needs.

#### Protect the Environment

Do not discharge into drains, soil, or water.

## **Typical Physical Characteristics**

Shell TONNA® Oil V	Test Method	68	220
Kinematic Viscosity @ 40°C cSt @ 100°C cSt	ASTM 445	6.8 8.9	220 18.5
Viscosity Index	ASTM 2270	105	99
Density @ 15°C kg/L	ASTM 4052	880	895
Flash Point, COC, °C	ASTM D 92	225	250
Pour Point °C (ISO 3016)	ASTM 97	-24	-15

These characteristics are typical of current production. While future production will conform to Shell specifications, variation in these characteristics may occur.