

Shell Tonna Oils S

High performance lubricant for machine tool slideways



Shell Tonna Oils S 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 their tackiness, anti-wear and stick-slip characteristics.

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.
- **Machine tool hydraulic systems**
Particularly recommended for machines which have a combined hydraulic and slideway lubrication system.
- **Machine tool gearboxes and spindles**
Also suitable for gear and headstock lubrication.

The lower viscosity grades are intended for horizontal slide lubrication (Tonna S 32 or S 68). For vertical slides use Tonna S 220.

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

Performance Features and Benefits

- **Excellent frictional properties**
Specially developed to overcome “stick-slip” problems with slow moving machine tool slides and tables, allowing more accurate positioning. This provides major benefits of improved surface finish and dimensional accuracy of workpieces.
- **Advanced technology**
Developed in conjunction with machine tool manufacturers to meet the requirements of the most advanced machine tools using a wide variety of slideway materials.
- **Good slideway adhesion**
Provides strong adhesion to slideway surfaces, resisting wash-off by metalworking fluids.

- **Ready separation from water-extensible cutting fluids**
Separates readily from water-extensible metalworking oils allowing easy removal by skimming.
- **Excellent anti-wear performance**
Provides high levels of 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-extensible cutting fluids.

Specification and Approvals

Tonna S meets the following specifications:

ISO/DIS 6743-13

DIN 51517 CLP

Health and Safety

Guidance on Health and Safety are available on the appropriate Material Safety Data Sheet, which can be obtained from your Shell representative.

Protect the environment

Take used oil to an authorised collection point. Do not discharge into drains, soil or water.

Typical Physical Characteristics

Tonna S		32	68	220	
ISO Viscosity Grade		ISO 3448	32	68	220
Kinematic Viscosity		ISO 3104			
at 40°C	mm ² /s		32	68	220
at 100°C	mm ² /s		5.5	8.6	18.5
Viscosity Index		ISO 2909	113	105	98
Flash Point COC	°C	ISO 2592	212	225	250
Pour Point	°C	ISO 3016	-33	-15	-12
Density at 15°C	kg/m ³	ISO 12185	870	879	894

These characteristics are typical of current production. Whilst future production will conform to Shell's specification, variations in these characteristics may occur.