



Previous Name: Shell Delima Oils

# Shell Paper Machine Oil S2 M 220

- *Reliable Protection*
- *Water Shedding*
- *Long Life*

## Paper Machine Circulating Oil

Shell Paper Machine Oil S2 M is a high performance oil designed to provide excellent all round protection for the diverse needs and conditions found in paper machines.

### DESIGNED TO MEET CHALLENGES

#### Performance, Features & Benefits

##### ■ Good oil life – Maintenance Saving

Shell Paper Machine Oil S2 M oil has been designed to resist breakdown under high temperatures and in the presence of water. This helps provide long oil life capability and helps protect against the formation of harmful deposits.

##### ■ Reliable wear & corrosion protection

Shell Paper Machine Oil S2 M uses a well proven zinc-based anti-wear system to provide reliable protection against wear.

##### ■ Maintaining system efficiency

Excellent water separation and air release helps in conjunction with high quality base oils help ensure the efficient lubrication of the machines and systems.

Shell Paper Machine Oil S2 M is also suitable for use with fine filtration to help ensure effective contaminant free lubrication to critical machine parts.

- Bulk oil temperatures should not exceed 70°C. It is specifically designed for:
- Lubrication of bearings in the (drying) section of paper machines
- Hydraulic and lubrication systems in deflection-compensating rolls
- Enclosed gears not requiring full EP performance.

#### Specifications, Approvals & Recommendations

- DIN 51517-2 – type 2
- FZG load stage 12 (DIN 51354)

For a full listing of equipment approvals and recommendations, please consult your local Shell Technical Helpdesk, or the OEM Approvals website.

#### Compatibility & Miscibility

##### ■ Seal & Paint Compatibility

Shell Paper Machine Oil S2 M is compatible with seal materials and paints normally specified for use with mineral oils.

#### Main Applications



##### ■ Paper machine applications

Shell Paper Machine Oil S2 M has been used extensively within the paper and pulp industry and is proven to deliver effective lubrication and protection in both the wet areas of machine application and the high temperature dry areas.

## Typical Physical Characteristics

Properties			Method	Shell Paper Machine Oil S2 M 220
Kinematic Viscosity	@40°C	mm <sup>2</sup> /s	ASTM D 445	220
Kinematic Viscosity	@100°C	mm <sup>2</sup> /s	ASTM D 445	18.7
Viscosity Index			ISO 2909	95
Density	@15°C	kg/m <sup>3</sup>	ISO 12185	900
Flash Point (COC)		°C	ISO 2592	265
Pour Point		°C	ISO 3016	-9
Emulsion Test		Mins	ASTM D 1401	10
Air Release		Mins	ASTM D 3427	14.3
Timken, OK Load		lbs	ASTM D 2782	40
Viscosity Grade			ISO 3448	220

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

### Health, Safety & Environment

- Guidance on Health and Safety is available on the appropriate Material Safety Data Sheet, which can be obtained from <http://www.epc.shell.com/>
- **Protect the Environment**  
Take used oil to an authorised collection point. Do not discharge into drains, soil or water.

### Additional Information

- **Advice**  
Advice on applications not covered here may be obtained from your Shell representative.

### Viscosity - Temperature Diagram for Shell Paper Machine Oil S2 M

