

# Shell Tegula V 32

**Advanced technology oil for hydrodynamic transmissions**



Tegula V 32 is an advanced technology oil designed to meet the latest requirements of variators and advanced railway transmission systems combining hydrodynamic couplings and torque converters with mechanical gears.

## Applications

- **Railway hydrodynamic transmission systems**

Transmission systems for railway diesel engines consist of various combinations of fluid couplings, torque converters and transmission gears. This type of transmission is used in combination with a hydrodynamic brake which is operated to reduce brake shoe wear during periods of prolonged braking down long slopes. At times, the brake oil temperature may reach up to 140 °C.

- **Gears and PIV variator lubrication**

## Performance Features and Benefits

- **Based on a blend of highly refined mineral oils and optimized additive system for superior thermal and oxidative stability**
- **Meets increased thermal requirements of railway hydrodynamic transmissions for extended drain intervals.**
- **Provides excellent and constant air release properties over long period**
- **Excellent extreme-pressure and micro-pitting resistance properties permit excellent load-carrying capacity with reduced component wear**
- **Compatibility with all seal materials and paints normally specified for use with mineral oil**

- **Enhanced compatibility with yellow metals even at higher temperatures**

- **Not recommended for use in industrial couplings if excessive water entrainment can not be avoided**

## Specification and Approvals

**Voith 3.285-149** (for use in Voith Power Transmissions).

Tegula V 32 is approved and recommended by Voith Turbo, PIV and Lenze.

## Advice

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

## 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 authorized collection point. Do not discharge into drains, soil or water.

## Typical Physical Characteristics

Tegula V			32
Kinematic Viscosity		ISO 3104	
	at 40 °C	mm <sup>2</sup> /s	32
	at 100 °C	mm <sup>2</sup> /s	5.6
Viscosity Index		ISO 2909	110
Density at 15 °C		kg/m <sup>3</sup>	870
Flash Point COC		°C	211
Pour Point		°C	-30
FZG-Test	A/8.3/90	DIN 51354-2	
	Failure load stage		>12

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