



Product Data

## Transmax Universal LL 80W-90

Universal fluid for manual transmissions and axles

### Description

Castrol Transmax Universal LL 80W-90 formulated with Smooth Drive Technology™ has excellent thermal and oxidative stability combined with superb temperature reduction. Protects against pitting. Its superior technology enables longer transmission life.

### Advantages

- A single product for transmissions and final drives reducing inventory and the potential for misapplication.
- High temperature stability gives superior performance and extended drain potential.
- Proven performance as a problem solver in differentials operating in hot climates under arduous conditions.
- Optimised synchroniser performance gives smooth gear shifting at all temperatures.
- High shear stability maintains performance over the life of the lubricant.
- Excellent wear protection particularly at high temperatures extends component life and reduces maintenance costs.

### Typical Characteristics

Name	Method	Units	Transmax Universal LL 80W-90
Density @ 15C, Relative	ASTM D4052	g/ml	0.893
Viscosity, Kinematic 100C	ASTM D445	mm <sup>2</sup> /s	17.0
Viscosity, Kinematic 40C	ASTM D445	mm <sup>2</sup> /s	168
Viscosity Index	ASTM D2270	None	108
Viscosity, Brookfield @ -26C (80W)	ASTM D2983	mPa.s (cP)	120000
Pour Point	ASTM D97	°C	-33
Flash Point, COC	ASTM D92	°C	214

## Product Performance Claims

API GL-4/5  
MAN 341 Z2, 341 GA1,  
MAN 342 M2  
MB-Approval 235.0  
DTFR 12B100 (MB 235.0)  
Scania STO 1:0, Scania STO 1:1G  
Volvo Transmission Oil 97321-24-081  
ZF TE-ML 02B, 05A, 12L, 12M, 16C, 17H, 19B, 21A  
Recommended for use in Hino manual transmissions and differentials

## Additional Information

Transmax Universal LL 80W-90 is registered under the following ZF approval numbers: ZF002143

Transmax Universal LL 80W-90  
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