



# TP STAR TRANS 80W-110



Very high performance lubricant specially developed for the lubrication of materials used in Public Works, Mines or Quarries.

TP STAR TRANS 80W-110, together with TP STAR MAX FE 10W-30, form the "TP STAR CONCEPT".

## USES

- ❶ Axles / Finals reductions
- ❷ Limited slip differentials
- ❸ Wet brakes
  
- All seasons  
From -15°C to +40°C

- TP STAR TRANS makes it possible to lubricate front or back strongly hypoid axles and loaded final reductions.
- TP STAR TRANS is usable in limited slip self-locking disc differentials.
- TP STAR TRANS permits also the cooling and the good work without vibrations of oil immersed brake systems.
- TP STAR TRANS can also be used in all types of gearboxes, with mechanical or synchronized shifting
- TP STAR TRANS is used all year round, due to its high viscosity index :
  - very fluid at cold temperature, permits a use of the final drive line, without power losses and with a break capacity immediately available and efficient.
  - thick at high temperature, keeps an optimal and secured lubrication of loaded organs.
- In certain application cases, TP STAR TRANS must be used in conjunction with the STAR XL additive (Refer to the Technical Data Sheet)

## PERFORMANCE LEVELS

- |   |   |
|---|---|
| API GL-5 / GL-4   | ● Its "Extreme-Pression" reinforced properties (API GL-5) give it excellent fatigue and wear resistances, specially for gears under load, shocks and high temperatures.   |
| CAT FD-1  | ● Meet the main requirements of the Final Drive specification :   |
| CAT TO-4  | CATERPILLAR FD-1 (SAE 50)   |
| Wet brakes and<br>"Limited slip"<br>axles of major OEMs | ● TP STAR TRANS has succeeded the official tests of wet brake frictions according to :<br>CATERPILLAR TO-4 (SAE 50)<br>KOMATSU Micro Clutch                               |
|   | ● Its friction characteristics are also adapted for use in axles equipped with limited slip self-locking disc differentials. Contact our Technical Services in all cases. |

## CUSTOMER BENEFITS

- |                |   |
|----------------|---|
| Simplification | ● Allows to strongly decrease the lubricant number needed for the whole vehicle park maintenance.         |
| Performances   | ● Reaches the performance levels required by the machinery OEMs for the severe earth-moving applications. |
| Security       | ● Erases all mistake possibilities of lubricant application, with security.                               |

## CHARACTERISTICS

### TP STAR TRANS

	Units	80W-110
Viscosity at 40°C	mm²/s	182
Viscosity at 100°C	mm²/s	18.6
Viscosity Index		115
Flash point	°C	230
Pour point	°C	- 33

All values are typical values.

TOTAL LUBRIFIANTS  
562 avenue du Parc de l'Île  
92029 NANTERRE  
FRANCE

TP STAR TRANS 80W-110  
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This lubricant, when used according to our recommendations and for the purpose for which it is intended, presents no particular hazards.  
A safety data sheet complying with current EC legislation can be obtained from your local commercial adviser.

