



TP STAR TRANS 85W-110



TOTAL

Very high performance lubricant specially developed for the lubrication of machinery used in Public Works, Mines or Quarries in hot climates areas.
TP STAR TRANS 85W-110, together with TP STAR MAX HT 15W-40, form the "Hot climates TP STAR CONCEPT".

USES

- ❶ Axles / Final red. Gearboxes
 - ❷ Limited slip differentials
 - ❸ Wet brakes
- All seasons
From 0°C to +50°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, powershift or mechanical type (with or w/out synchronized shifting) requiring an SAE 50 viscosity grade.
- Thanks to its high viscosity, TP STAR TRANS can be used all year round, even in case of very hot ambient temperatures.
- 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

Wet brakes and "Limited slip" axles of major OEMs

- Its "Extreme-Pression" reinforced properties (API GL-5) give it excellent fatigue and wear resistances, specially for gears under load, shocks and high temperatures.
- Meet the main requirements of the Final Drive specification :
CATERPILLAR FD-1 (SAE 50)
- TP STAR TRANS has succeed the official tests of wet brake frictions according to :
CATERPILLAR TO-4 (SAE 50 : axles and final reductions application)
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

Performances

Security

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

CHARACTERISTICS

TP STAR TRANS	Units	85W-110
Viscosity at 40°C	mm ² /s	210
Viscosity at 100°C	mm ² /s	20
Viscosity Index		110
Flash point	°C	240
Pour point	°C	- 24

All values are typical values.

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

TP STAR TRANS 85W-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.