

## Optitemp XBT1LF

Grease for thermally and mechanically highly loaded CV joints

### Description

CASTROL OPTITEMP™ XBT 1 LF is a grease designed for extreme loads in all types of constant velocity joints. The fully synthetic product features excellent high and lowtemperature characteristics. Due to its special additives it ensures a reduced coefficient of friction which leads to fuel saving. The product further reduces the temperature in the joint and improves the noise and vibration behavior (NVH). The compatibility with conventional boot materials is excellent.

### Application

- Application in homokinetic ball and tripod joints (free from MoS<sub>2</sub>)
- Suited for joints in side shafts and high-speed joints in propeller shafts.
- All types of vehicles where "Fuel Economy" is required.
- Vehicles where the periodic axial forces in the joint have a direct influence on the driving comfort.
- Joints subjected to high mechanical and thermal loads.
- Application at extreme temperatures:
  - - 40°C low temperature
  - 160°C permanent temperature (in CV joints)
  - 180°C maximum temperature (in CV joints)
- At high sliding friction components.

### Advantages

- Wide range of applications
- Extremely wide temperature range
- High service life, excellent wear behavior
- Very low coefficients of friction
- Extreme reduction of the axial forces in the joint
- Good oxidation stability
- Optimum boot compatibility with CR and Hytrel
- "Fuel Economy" (in some cases up to 0.05 l / 100 km)
- Significant lowering of the operating temperatures
- Low evaporation losses

## Typical Characteristics

Name	Method	Units	Optitemp XBT1LF
Colour	Visual	-	yellow/green
Base oil	-	-	Synthetic
Thickner type	-	-	Polyurea
Worked Penetration (60 strokes @ 25°C / 77°F)	ISO 2137 / ASTM d217	0.1 mm	290 - 320
Density @ 20°C / 68°F	ASTM D4052	kg/m <sup>3</sup>	890
Base Oil Viscosity @ 40°C / 104°F	ISO 3104 / ASTM D445	mm <sup>2</sup> /s	259
Base Oil Viscosity @ 100°C / 212°F	ISO 3104 / ASTM D445	mm <sup>2</sup> /s	28.7
Dropping point	ISO 2176 / ASTM D566	°C/°F	>230 / >446
Water Resistace	DIN 51807-1	Rating	Max. 1
Rust Test - EMCOR (distilled water)	ISO 11007 / ASTM D6138	Rating	Max. 0/1
Flow pressure @ 20°C / 68°F	DIN 51805	mBar	<100
Flow pressure @ -20°C / -4°F	DIN 51805	mBar	<600
Flow pressure @ -35°C / -31°F	DIN 51805	mBar	<1600
VW Oil Separation test (1 hr / 90°C)	P-VW-1423	% wt	<5.0
Elastomer Compatibility - with Inepsa CR 4012 (168hrs @ 100°C / 212°F)	ISO 1817	change in shore hardness / volume change (%)	≤ -20 / ≤20
Elastomer Compatibility - with Inepsa CR 4012 (168hrs @ 100°C / 212°F)	DIN 53504	change in tensile strength (%) / change in elongation (%)	≤ -10 / ≤ -20

Subject to usual manufacturing tolerances

## Additional Information

CASTROL OPTITEMP BT 1 LF is compatible with the elastomers chloroprene rubber CR (e.g. Neopren™) and polyetherester rubber (e.g. Hytel™).

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