CERAN XM 460

Grease

Extreme-pressure water resistant high temperature *"NEW GENERATION"* calcium sulfonate complex grease.

APPLICATIONS

Multi purpose heavy duty water resistant grease.

Shock loaded applications in industry even in severe demanding environment (water, dust, high temperature).

- **CERAN XM 460** is made of the ***NEW GENERATION*** calcium sulfonate complex soap designed by TOTAL Lubrifiants. This new soap has enhanced properties in terms of water and thermal resistance, load capacity, anticorrosion properties while keeping a very high level of pumpability and ability to lubricate well in case of high loads.
- **CERAN XM 460** is suitable for the lubrication of all kinds of components subject to high loads and temperatures, shocks, working in conditions where the grease is in frequent contact with water (even sea water due to enhanced antirust performances).
- **CERAN XM 460** is suitable for the lubrication of **bearings in steel plants** (continuous castings and rolling mills) and in **paper industry**. Ceran XM 460 is also suitable for the lubrification of hard wood **granular presses** and in all industrial applications under severe conditions (wet, loaded, high temperature, dust,…) namely **mining and cement industries.**
- **CERAN XM 460** is suitable for use in centralized greasing systems.
- Always avoid contamination of the grease by dust and/or dirt when applying. Preferably use a pneumatic pump system.

SPECIFICATIONS

- ISO 6743-9: L-XBFIB 1/2
- DIN 51 502: KP1/2R -30

ADVANTAGES

True multi purpose.
Shock loads.
Water resistant.
Anti corrosion.

- The ***NEW GENERATION*** of calcium sulfonate complex soap developed by TOTAL Lubrifiants allows **CERAN XM 460** to present outstanding performances even at high nDm. This ***NEW GENERATION*** keeps all benefits in terms of corrosion protection, bearings lifetime, high loads and thermal resistance.
- Excellent anti-oxidation and anti-corrosion properties thanks to the excellent behaviour of the calcium sulfonates, also in the presence of sea water.

NEW GENERATION
allowing use in high speed factors.

- The ***NEW GENERATION*** of calcium sulfonate complex soap allows to keep outstanding **CERAN XM 460** performances even in case of high speed applications where normally polyurea or lithium complex greases are requested.

No harmful substances.

- **CERAN XM 460** does not contain lead, or other heavy metals considered harmful to human health and the environment.

TYPICAL CHARACTERISTICS	METHODS	UNITS	CERAN XM 460 *(typical values)*
Soap/thickener		-	Calcium sulfonate
NLGI grade	ASTM D 217/DIN 51 818	-	1-2
Color	Visual	-	Brown
Appearance	Visual	-	Smooth
Operating temperature range		°C	- 25to 180
Kinematic viscosity of the base oil at 40°C	ASTM D 445/DIN 51 562-1/ISO 3104/ IP71	mm²/s (cSt)	460
Mechanical stability			
Penetration at 25°C	ASTM D 217/DIN 51 818	0.1 mm	280-310
Penetration after 100 000 strokes	ISO 2137	0.1 mm	+21
Shell Roller 100 hours at 80°C	ASTM D 1831 mod	0.1 mm	0
Shell Roller 100 hours at 80°C + 10% water	ASTM D 1831 mod	0.1 mm	-34
Thermal stability			
Dropping point	IP 396	°C	> 300
Oil release 50 hours, 100 °C	ASTM D 6184	%	1.7
Oil release 168 hours, 40°C	NF T 60-191	%	1.1
Oxidation stability at 99°C +-0.5°C			
Pressure drop after 100 hours	ASTM D 942	Psi	5
Pressure drop after 500 hours		Psi	16
Antirust properties			
EMCOR, distilled water	ISO 11007	Rating	0-0
EMCOR, synthetic sea water	ISO 11007	Rating	0-0
Copper corrosion, 24 hours at 100°C	ASTM D 4048	Rating	1b
Antiwear and EP properties			
Four ball wear (scar diameter)	ASTM D2266	mm	0.43
Four ball weld load	ASTM D2596	kgf	420-440
Cold properties			
Penetration at -20°C	ISO 13737	0.1 mm	95
Flow pressure at -20°C	DIN 51 805	mbar	1160
Flow pressure at 1400 mbar	DIN 51 805	°C	-25
Torque at -20°C			
Starting torque	ASTM D 1478	g.cm	890
After 1 hour		g.cm	72

Above characteristics are mean values given as an information.