Product Data Sheet

Matrix® EP & TK

EXTREME-SERVICE GREASE

Whitmore® Matrix® is a calcium sulfonate complex grease that is highly recommended for difficult applications such as extreme pressure, water, heat, or chemical attack. The thickener system in Matrix has a protective effect similar to that of molybdenum disulfide, protecting equipment from wear under difficult conditions of extreme load and slow speed. This grease helps neutralize acids and also resists reacting with caustic materials. Matrix grease has prevented corrosion despite years of exposure to phosphoric acid fumes.

A continuous temperature of 400°F (200°C) is within its safe range. It can withstand 550°F (288°C) continuously, provided the bearing is replenished every 30 minutes with normal quantities of grease. Occasional temperature spikes to 600°F (315°C) can be sustained for 5 to 10-minute periods without melting or carbonizing.

Matrix EP 2 may be used at DN speeds up to 250,000. Matrix® TK 2 (NLGI grade 2) is designed for slower moving bearings up to 150,000 DN.

Matrix EP 2 meets the Bucyrus International specification for multipurpose grease (SD 4711). It also meets the following standards per DIN 51502: KP2R -20.

Andritz Separation, Inc. of Arlington, Texas has issued an approval of Whitmore Matrix EP Grease for use in the automatic lubrication systems of their tilting pan filters.

WHITMORE®

EXTREME-SERVICE GREASE

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APPLICATIONS:

- Water / Chemicals: Phosphate processing, suction and wet end rolls on paper machines, outdoor cranes and ship lifts, boat trailer wheel bearings and other marine applications
- Highly Loaded Equipment: Pellet mills, shaker screens, belt conveyor pulleys, slewing bearings, pin and bushing, centrifuges, hammermills, sealed work roll bearings, fan bearings and many others
- High Temperature Applications: Oven conveyor, bearings plastic extruder bearings, rotary unions on roto-molders
- Automotive and Earthmoving Applications: Wheel bearings, Ujoints, ball joints, pin-and-busing pivot points and slewing bearings

BENEFITS:

- LONG LIFE – reduced relubrication frequency
- WATER RESISTANT - seals out water, even in under water applications
- WIDE SPEED RANGE - recommended for use in electric motor bearings as well as slow moving bearings and bushings

ASTM #	TYPICAL CHARACTERISTICS				
	Grade	**EP 0**	**EP 1**	**EP 2**	**TK 2**
D-217	**Penetration Range**	355-385	310-340	265-295	265-295
D-2265	**5 Dropping Point,** °F (°C)	--	520 (270)	520 (270)	520 (270)
D-445	**Kinematic Viscosity** (Base Oil w/Polymer)				
	cSt @ 40°C	130.0	500.0	500.0	582.4
	cSt @ 100°C	12.0	31.0	31.0	47.0
D-445	**Kinematic Viscosity** (Base Oil)				
	cSt @ 40°C	73.0	130.0	130.0	--
	cSt @ 100°C	7.5	12.0	12.0	--
D-2509	**Timken OK Load,** lb	Not Tested	50	55	55
D-2596	**Four Ball EP**				
	Weld Point, kg	800	800	800	800
	Load Wear Index	68	70	70	70
D-2266	**Four Ball Wear,** Scar Width, mm	0.50	0.48	0.45	0.45
FTM 321.2	**Screen Bleed,** % Loss	Not Tested	Not Tested	<1	Not Tested
D-1264	**Water Washout,** % Loss	1	--	1	1
D-3527	**Wheel Bearing Life Test,** hrs of life	NA	NA	260	NA
D-1743	**Rust Test**	Pass	Pass	Pass	Pass
D-445	**Low Temperature Pumpability**				
	Lincoln Ventmeter @ 400 psi, °F (°C)	-20 (-29)	12 (-11)	34 (1)	70 (21)

Packaging:
Drums, Kegs, Pails, Cartridges (50/case)

whitmores.com

YouTube

WHITMORE®

Made in the USA in an ISO 9001:2015 and ISO 14001:2015 Facility.