

## MATRIX<sup>®</sup> HIGH PERFORMANCE GREASE

Matrix<sup>®</sup> 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<sup>®</sup> has a protective effect similar to that of molybdenum disulfide, protecting equipment from wear under difficult conditions of extreme load.

Matrix<sup>®</sup> helps neutralize acids and also resists reacting with caustic materials. Matrix<sup>®</sup> grease has prevented corrosion despite years of exposure to phosphoric acid.

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<sup>®</sup> EP 2 is manufactured to NLGI grade 1.5 for use at a broad range of bearing speeds up to DN 200,000. Matrix<sup>®</sup> TK 2 (NLGI grade 2) is designed for slower moving bearings up to 150,000 DN.

Matrix<sup>®</sup> EP 2 is the preferred grade for electric motor bearings.

Matrix<sup>®</sup> 5M EP 2 is designed primarily for earthmoving equipment and other heavy-duty rolling stock applications. Matrix<sup>®</sup> 5M EP 2 contains 5% solid lubricants.

Matrix<sup>®</sup> meets the Bucyrus International specification for multi-purpose grease (SD 4711)

### BENEFITS:

- **LONG LIFE** - reduced relubrication frequency.
- **WATER RESISTANT** - does not deteriorate when water (including treated water) enters the body of the grease.
- **WIDE SPEED RANGE** - recommended for use in electric motor bearings as well as slow moving bearings and bushings.

### 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, hammer mills, 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, U-joints, ball joints, pin-and-bushing pivot points and slewing bearings.

ASTM #	Grade	TYPICAL CHARACTERISTICS					
		EP 00	EP 0	EP 1	EP 2	TK 2	5M EP 2
D-217	Penetration Range	400-430	355-385	315-345	285-315	270-300	265-295
D-2265	Dropping Point, °F (°C)	N/A	>500 (260)	>500 (260)	>500 (260)	>500 (260)	>550 (288)
D-445	Kinematic Viscosity (Base Oil w/Polymer) cSt @ 40°C cSt @ 100°C	130.0	130.0	500.0	500.0	582.4	185.0
		12.0	12.0	31.0	31.0	47.0	15.4
D-445	Kinematic Viscosity (Base Oil) cSt @ 40°C cSt @ 100°C	73.0	73.0	130.0	130.0	--	73.5
		7.5	7.5	12.0	12.0	--	7.6
D-2509	Timken OK Load, lb	Not Tested	Not Tested	50	55	55	Not Tested
D-2596	Four Ball EP Weld Point, kg Load Wear Index	400	500	800+	800+	800+	800
		Not Tested	68	70	70	70	Not Tested
D-2266	Four Ball Wear, Scar Width, mm	0.48	0.50	0.48	0.45	0.45	0.42
FTM 321.2	Screen Bleed, % Loss	Not Tested	Not Tested	Not Tested	<1	Not Tested	Not Tested
D-1264	Water Washout, % Loss	N/A	1	--	1	1	1
D-3527	Wheel Bearing Life Test, hrs of life	N/A	NA	NA	260	NA	Not Tested
D-1743	Rust Test	Pass	Pass	Pass	Pass	Pass	Pass
OEM Standard	Low Temperature Pumpability Lincoln Ventmeter @ 400 psi, °F (°C)	-20 (-29)	-20 (-29)	12 (-11)	34 (1)	70 (21)	Not Tested

### PACKAGING

Drums	Kegs	Pails	Cartridges 50 Per Case
-------	------	-------	---------------------------

930 Whitmore Drive • Rockwall, Texas 75087 • USA • (972) 771-1000 • 800-699-6318  
An ISO 9001 and ISO 14001 registered company • www.whitmores.com

LIMITED WARRANTY: The Whitmore Manufacturing Company makes the Limited Express Warranty that at the date of delivery, its goods shall be free from defects in Whitmore's materials and workmanship and shall meet the express written statements of quality, if any, made by Whitmore in connection with the sale of the goods. Other than such Limited Express Warranty, there are no express warranties made with respect to the sale of goods and all implied warranties existing under the law are expressly disclaimed and negated, particularly, Whitmore NEGATES AND DISCLAIMS THE IMPLIED WARRANTY OF MERCHANTABILITY AND THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. All other liability, either in contract or tort, including without limitation, strict liability found in Section 402A of the Restatement of Torts or otherwise, is negated and disclaimed. The sole remedy for Whitmore's breach of such Limited Express Warranty shall be a refund of the purchase price of its goods, and Whitmore shall have no responsibility for incidental or consequential damages sustained as a result of the use of the goods, whether sustained to the goods themselves or to other property. Data listed are subject to usual manufacturing variations.



Scan QR code to link to web version