CHESTERTON
Global Solutions, Local Service.

638

EMG

HIGH PERFORMANCE ELECTRIC MOTOR GREASE

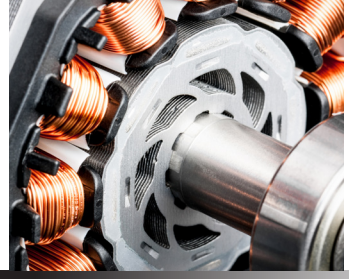
APPLICATION AREAS

• Electrical motors and generators exposed to severe industrial conditions of corrosion, moisture, vibration

• Forced draft, Induction draft fans, fin fans, blowers, HVAC

• Ball and roller bearings, with medium to high speeds; nDm 80,000 – 800,000

• Motors operating in high and low temperature conditions, speeds from less than 1750, and up to 3550 RPM (ISO 100 and 46 viscosities available)



PRODUCT DATA SHEET

KEY FEATURES AND BENEFITS

- Synthetic base fluid fortified with high performance additives
- Excellent thermal and mechanical stability
- Compatible extreme-pressure additives with non-ferrous metals
- Outstanding resistance to extreme pressure, vibration, and start/stop
- Virtually waterproof and steam resistant
- Corrosion resistant protective lubricant
- Compatible with ferrous and non-ferrous metals, most seals and elastomers

PACKAGING

400 g
18 kg

INSTRUCTIONS

Apply with a grease gun or Lubri-Cup™. Before using, wipe grease fittings to remove contamination. Keep grease container closed when not in use. Reapply at recommended intervals.

DESCRIPTION

The Chesterton 638 EMG Electric Motor Grease is designed for electric motor bearings operating in demanding conditions.

638 EMG has outstanding anti-wear and extreme-pressure resistance. It can be used in motors operating with high vibrations, and constant start/stop regimes. Its extreme-pressure additives are safe for non-ferrous metals (windings, bushings, bearing cages) making it a preferred choice for electric motor bearings.

638 EMG is made with synthetic base oil, proprietery sulfonate thickener, and Chesterton QBT additive technology. 638 EMG has high thermal and mechanical stability. With a dropping point of 318°C (604°F), it will not melt or run out even at higher temperatures.

It has excellent water washout resistance. Even with a contamination up to 30%, water will not diminish the properties of Chesterton 638 EMG.

638 EMG grease can extend bearing life, reduce equipment failures, while improving the operational efficiency of lubricated elements.

638 EMG is designed for electric motors exposed to high humidity, corrosive vapors, shock load and vibration as found in pulp and paper mills, mining operations, steel mills, power plants, and water treatment facilities.

638 EMG has been shown to be compatible with most OEM specified, shear stable Polyurea or Lithium complex thickened electric motor greases, as determined by shear stability testing per ASTM D 217.

TYPICAL PHYSICAL PROPERTIES

	638 EMG 100	638 EMG 46
Appearance	Green	Beige
Consistency, NLGI	2	2
Texture	Smooth, Buttery	Smooth, Buttery
Base Oil	PAO synthetic	PAO synthetic
Speed Factor (NDm)*	80,000 – 500,000	200,000 – 800,000
Thicknener	Proprietery Sulfonate Complex	Proprietery Sulfonate Complex
Base Oi Viscosity (ASTM D 445, DIN 51 561)		
@40°C	98 cSt	50 cSt
@100°C	14 cSt	8.5 cSt
Viscosity Index VI	146	145
Specific Gravity	0.95 – 1.05	0.95 – 1.05
Dropping Point (ASTM D 2265, DIN 51 801/1)	318°C (604°F)	318°C (604°F)
Penetration (ASTM D 217, DIN ISO 2137)	265 – 295	265 – 295

Technical information continues on page 2

638 EMG

TYPICAL PHYSICAL PROPERTIES

	638 EMG 100	638 EMG 46
Shear Stability (ASTM D 217), % Change		
10,000 strokes	-1.00%	-1.00%
100,000 strokes	-4.50%	-2.80%
Four Ball Load Test, (ASTM D 2596, DIN 51 350/4)		
Weld Load, Kg (N)	800 (7845)	620 (6080)
Load Wear Index	130	92
Four Ball Wear Test (ASTM D 2266, DIN 51 350/5), Scar Diameter, 40 kg, 1200 rpm, 75°C, 1 hour	0.40 mm	0.42 mm
Operating Temperature (Above 180°C, increased lubrication frequency is required)	-40°C (-40°F) 240°C (464°F)	-40°C (-40°F) 240°C (464°F)
Oil Separation (ASTM D 1742), % loss	< 0.1%	< 0.1%
Water Washout (ASTM D 1264), 80°C	<0.05%	<0.05%
Corrosion Resistance (ASTM B 117), 5% NaCl	>1000 hrs @ 50 micron film thickness	>1000 hrs @ 50 micron film thickness
Bomb Oxidation, 1000 hrs (ASTM D 942), psi drop	6	4
Copper Corrosion (ASTM D 4048), DIN 51 811	0/1B	0/1B
Wheel Bearing Life (ASTM D 3527), hours	240	280
ISO/DIN Classification	ISO-L-XD F I B2/DIN 51 502-K LP 2HC R1-40	ISO-L-XD F I B2/DIN 51 502-K LP 2 HC

*For correct recommendation of grease viscosity for your electric motor, please contact Chesterton Application Engineering team.

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