

Technical Report

Science Road, Norwalk, CT 06852 - (203) 866-5551

Fax: (203) 866-0425 - Email: lad@kingindustries.com



K-CORR[®] G-1350

Rust Inhibitor Performance in Lithium 12-Hydroxystearate Grease

K-CORR G-1350 is a zinc-containing rust inhibitor system that imparts outstanding protection to lubricating greases exposed to extreme conditions. This product was specifically designed as an alternative to zinc naphthenate and provides exceptional rust protection when using synthetic sea water and 3% NaCl solution in the EMCOR rust test.

Formulations	--	K-CORR ZN-510*	K-CORR G-1350
Tests	--		
Treat Level	--	1.50%	
Base Grease	Fully Formulated Lithium 12-OH Grease without Rust Inhibitor		
EMCOR (ASTM D6138) 1 week, 3% NaCl	4,4	1,1	0,0
Grease Water Stability (DIN 51 807 Part 1) 3 hours, 40°C 3 hours, 90°C	0 1	0 1	0 1
PDSC (ASTM D5483) Onset Point, 180°C (min)	26	38	49
Four Ball Wear (ASTM D2266) 1 hour, 75°C, 40kgf, 1200 rpm (mm)	0.65	0.44	0.54
Water Washout Resistance (ASTM D1264) % Loss, 100°F (38°C) % Loss, 175°F (79°C)	1.48 0.90	-- --	0.60 0.90
Norma Hoffman (ASTM D942) 100 hours, pressure drop (psi)	2	2	2
Copper Corrosion (ASTM D4048) 24 hours, 100°C	1b	3a	3a
Four Ball Weld (ASTM D2596 modified)† 10 seconds, 25°C, 1800 rpm OK Load (kgf) Weld Load (kgf)	220 240	180 200	260 280
Cone Penetration (ASTM D217) Unworked 60 Strokes 10,000 Strokes Change from 60 to 10,000 Strokes	247 273 283 3.66%	--	240 257 261 1.55%
Dropping Point (ASTM D2265) (°C)	194	188	191

* Zinc naphthenate (10% zinc)

† Four Ball Weld ran at 1800 rpm (ASTM) with 20 kg weight increments according to DIN 51 350

The results shown reflect data generated by King Industries' Technical Service Laboratory. Actual results may vary depending on the thickener system, base oil, and test equipment design.

(see reverse side)

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Because greases have performance requirements other than just rust protection, it is important to consider the effects of different types of additives on grease properties. In addition to imparting excellent rust protection, **K-CORR G-1350** has been formulated to enhance antiwear and antioxidation properties and to minimize adverse effects on other grease performance and physical properties.

For Samples or Technical Service, contact King Industries or your King representative.

King Industries, Inc.
Science Road
Norwalk, CT 06852-0588
Tel: 203-866-5551
Fax: 203-866-0425
E-mail: LAD@kingindustries.com

King Industries International, Inc.
Science Park 402,
1098 XH Amsterdam
The Netherlands
Tel: +31-20-723-1970
E-mail: info@kingintl.nl

China Sales Office
Dalian Mingruida Technical Consulting Co., Ltd.
Building 51, 20 Shuxiang Street
Dalian, China
Tel: +86-15941108485
Email: Hui.Wang@kingindustries.com

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