

Technical Report

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K-CORR® G-1340

Rust Inhibitor Performance in Lithium 12-Hydroxystearate Grease

K-CORR G-1340 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-1340
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	45
Four Ball Wear (ASTM D2266) 1 hour, 75°C, 40kgf, 1200 rpm (mm)	0.65	0.44	0.52
Water Washout Resistance (ASTM D1264) % Loss, 100°F (38°C) % Loss, 175°F (79°C)	1.48 0.90	-- --	0.75 0.82
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	220 240
Cone Penetration (ASTM D217) Unworked 60 Strokes 10,000 Strokes Change from 60 to 10,000 Strokes	247 273 283 3.66%	--	262 272 280 2.99%
Dropping Point (ASTM D2265) (°C)	194	188	183

* Zinc naphthenate (10% zinc)

‡ Four Ball Weld run 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-1340** 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.

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