

Minnesota Department of Transportation Specification for Bridge Bearing Lubricant

1. Scope- This specification details a heavy duty anti-seize and extreme pressure bridge bearing lubricant.

2. General Requirements-

Only Mn/DOT Approved Bridge Bearing Lubricant shall be used. The Approved Products List and Qualification Procedure can be accessed on the Approved Products webpage at <http://www.dot.state.mn.us/products/index.html>. The compound shall meet the requirements of MIL-A-907E

3. Physical Requirements

Test	Test Method	Specification
Thickener Type		Calcium Complex
Flash Point, °C	ASTM D-92	>250
Salt Fog, hrs	ASTM B-117	4,000
Worked Penetration, 60 strokes @ 25°C	ASTM D-217	250-320
NLGI Grade	ASTM D-217	1/2
Dropping Point, °C	ASTM D-566	300
Bearing Rust Test	ASTM D-1743	Pass
Four Ball EP Load Wear Index, kg Weld Load	ASTM D-2596	100 minimum 800 kgf min.
Fretting Wear, 23 °C, 22hrs, mg loss	ASTM D-4170	10 max

4. Manufacturer Certification

Each batch of material used on Mn/DOT projects shall be accompanied by manufacturer's written certification listing batch number, quantity and certifying that the product meets this specification.

5. Inspection, Sampling and Testing

The manufacturer shall submit a one pint sample of the Bridge Bearing Lubricant along with a letter of certification and test results stating that the Bridge Bearing Lubricant meets the requirements of this specification. Infrared scans will be run on batch samples to verify formulations have not changed. Any changes in formulation may result in product being removed from the Approved Products List.