



Grease, Synthetic, Polyurea, Shear Stable, Multi-Purpose

1 Scope

1.1 Material Description. This specification describes an environmentally-friendly, shear stable, multi-purpose grease consisting of a synthetic Polyalphaolefin (PAO) oil with a polyurea thickener.

1.2 Symbols. Not applicable.

1.3 Applicability. This specification was released originally for grease used to lubricate body hardware applications requiring high film strength, low temperature performance and anti-wear protection. Applications include locks, latches, seat mechanisms, recliners, jack screws, pivot joints and open gears.

2 References

Note: Only the latest approved standards are applicable unless otherwise specified.

2.1 External Standards/Specifications.

ASTM D217	ASTM D1478	ASTM D2265	ASTM D2596
ASTM D1264	ASTM D1742	ASTM D2509	

2.2 GM Standards/Specifications.

GMW3059

2.3 Additional References.

TMC003 Material Safety Data Sheet guidance documents (available at www.gmsupplypower.com).

3 Requirements

See Table 1. Physical Properties.

3.1 An infrared trace produced on any infrared spectrophotometer is expected to be available for checking production shipments.

3.2 Performance Requirements. Materials must perform satisfactorily in their specific automotive hardware applications between temperatures of -50 °C and 150 °C.

Table 1: Physical Properties

Properties	Values	Test Methods
Oil Separation, Percent (%)	< 2%	ASTM D1742
Worked Penetration, millimeter (mm) • 60 Strokes • 100 000 Strokes	265 to 295 < 325	ASTM D217
Dropping Point, degrees, Celsius (°C)	260 Minimum	ASTM D2265
Four (4) Ball Wear, millimeters (mm)	0.55	ASTM D2265
Four (4) Ball Extreme Pressure (EP) • Load Wear Index • Weld Point, kilogram (kg)	83.5 315	ASTM D2596
Water Washout, percent (%)	3.7	ASTM D1264
Timken Okay (OK) Load, kilograms (kg) pounds (lb)	22.7 (50)	ASTM D2509
Low Temperature Torque at - 40 °C • Start • 10 Minutes • 1 h	< 1200 gm/cm < 650 gm/cm < 225 gm/cm	ASTM D1478
SRV Friction Test, 80 °C Weld, Newton meters (Nm)	1100	-
Coefficient of Friction • At 300 N	0.95	-

SRV: Reciprocating Friction and Wear Test (Schwingung Reibung Verschleiß)

4 Manufacturing Process

Not applicable.

5 Rules and Regulations

5.1 Legal Regulations. All materials must satisfy applicable laws, rules, regulations and recommendations valid in the country of usage.

5.2 Language. In the event of conflict between the English and domestic language, the English language shall take precedence.

5.3 Inspection and Rejection. All shipments of material or parts under contract or purchase order manufactured to this specification shall be equivalent in every respect to the initial samples approved by Engineering. There shall be no changes in either formulation or manufacturing processes permitted without prior notification and approval by Engineering. Lack of notification by the supplier constitutes grounds for rejection of any shipment. While samples may be taken from incoming shipments and checked for conformance to this specification, the supplier shall accept the responsibility for incoming shipments meeting this specification without dependence upon purchaser's inspection.