

AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
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COMPOUND, ANTI-SEIZE White Lead Base

1. ACKNOWLEDGMENT: A vendor shall mention this specification number and its revision letter in all quotations and when acknowledging purchase orders.
2. APPLICATION: To prevent seizure of threads on removable parts while assembling or disassembling.
3. COMPOSITION (by weight):

Product	White Lead Paste	58-62%	Pigment	89.0% min
			Linseed Oil	11.0% max
			Moisture and other volatiles	0.5% max
			Coarse particles and "skins" (based on pigment)	1.5% max
	Petrolatum	9-11%		
	Graphite (micronized or colloidal)	9-11%		
	Lubricating Oil	9-11%		
	Asphalt	9-11%		

4. TECHNICAL REQUIREMENTS: The components specified in Section 3 shall conform to the following requirements. The component ingredients shall be intimately assembled and processed as required in accordance with the best practice to produce a high quality product.
- 4.1 White Lead Paste: The total residue retained on a No. 325 sieve shall be classed as "coarse particles and 'skins'" and the percentage figured on weight of pigment. No hard particles or foreign material shall be present.
- 4.1.1 Dry Pigment: Shall be free from adulterants and shall contain no more than the traces of impurities incident to well-controlled manufacture of high-grade basic-carbonate whitelead. It shall have a composition approximating the formula $2PbCO_3 \cdot Pb(OH)_2$ and shall conform to the following requirements:

Lead Carbonate	65.0-75.0%
Coarse particles retained on No. 325 sieve	1.0% max
Impurities	1.0% max
Moisture	0.7% max

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- 4.2 Petrolatum: Shall be uniform in quality, clean, homogenous, refined, and free from abrasive or other foreign materials. It shall conform to the following requirements:

Color	ASTM No. 2 to No. 8
Viscosity, Saybolt Universal, at 210 F	70-95 sec
Melting Point	120-140 F
Flash Point	390 F min
Penetration (unworked consistency)	170-275
Reaction	neutral
Neutralization Number	0.1 max
Precipitation from 20 g sample	0.3 ml max
Evaporation Loss at 221-230 F, 1 hr	2.0% max
Corrosion at 212 F, 3 hr (copper strip)	negative

- 4.3 Graphite: Shall be uniform, thin flakes, or finely ground, free from grit, or other deleterious substances and shall contain not more than 2.0% ash, by weight. Not less than 95% shall pass through a 200 mesh sieve.

- 4.4 Lubricating Oil: Shall be a refined petroleum oil without the admixture of fatty oils, fatty acids, resins, soaps, or other additive compounds not naturally occurring in petroleum. It shall conform to the following requirements:

Color	ASTM No. 7 Dil. max
Viscosity, Saybolt Universal, at 210 F	75-105 sec
Flash Point	395 F min
Pour Point	40 F max
Carbon Residue	1.4% max
Neutralization Number	0.3 max
Corrosion at 212 F, 3 hr (copper strip)	Not more than slight discoloration

- 4.5 Asphalt: Shall be a petroleum asphalt conforming to the following requirements:

Softening Point	149-230 F
Flash Point	392 F min
Penetration at 77 F, 100 g, 5 sec	25-40
Ductility at 77 F	2 cm min
Loss on Heating at 325 F, 5 hr	1.0% max
Bitumen (soluble in carbon disulphide)	99.0% min
Proportion of bitumen soluble in carbon tetra chloride	99.0% min

5. QUALITY: The compound shall be a smooth homogenous mixture, free from lumps, cakes, skins and abrasives. The compound or any of its ingredients shall not cause corrosion or amalgamate with any combinations of aluminum alloys, magnesium alloys, copper alloys, steel, and cadmium plate.

6. PACKAGING:

- 6.1 Unless otherwise specified, the compound shall be supplied in one-pound air-tight containers which shall be kept tightly covered when not being used.