



Lubricant, Solid Film

[MIL-L-46010D]

A solid film lubricant renders a surface permanently lubricated, giving rise to the elimination of wet lubes. The applications vary as do the coatings. From MoS (molybdenum disulphide) to PTFE (polytetrafluoroethylene) otherwise known as Teflon, compounds are blended to meet specific needs. Low VOC coatings are available in both organic and inorganic solid film lubricants as well as corrosion inhibitive coatings. This mil spec establishes the requirements for three types of heat cured solid film lubricant that are intended to reduce wear and prevent galling, corrosion and seizure of metals. Compliance: all items must meet Sections 3 and 5 of the spec. For use on aluminum, copper, steel, stainless steel, titanium, and chromium and nickel bearing surfaces. Thickness range: .0003" - .0005"mm. No single reading less than .0002" or greater than .0007".

Type I: A cure temperature of $300^{\circ}\text{F} \pm 60^{\circ}\text{F}$ and endurance life of 250 minutes.

Type II: A cure temperature of $400^{\circ}\text{F} \pm 60^{\circ}\text{F}$ and endurance life of 450 minutes.

Type III: A low volatile organic compound (VOC) content lubricant with cure cycles of $300^{\circ}\text{F} \pm 60^{\circ}\text{F}$ for one hour an endurance life of 450 minutes.

Color 1: Natural product color.

Color 2: Black color.

Applications:

Ammo loading machines; Sealed linkages; Vibratory assembly equipment; Cams; Journals; Firearms components; Mold release; Chemical process equipment; Pumps and compressors; Industrial bakeware; Glass coatings .