

Abstract Submitted
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Plasma characteristics of PTFE and hexafluoropropene deposition on AISI 1050 Stainless steel for lubrication ERDOGAN TEKE, FERHAT BOZDUMAN, ALI GULEC, HATICE VAROL, SORIN MANOLACHE, Suleyman Demirel University, ERDEM CAMURLU, Akdeniz Universitesi, CAHIT KURBANOGLU, LUTFI OKSUZ, Suleyman Demirel University — Optical and electrical characteristics of sprayed polytetrafluoroethylene (PTFE) by Argon plasma and also hexafluoropropene (C_3F_6) plasma were measured for different plasma parameters (treatment time, type of gas, power, pressure, electrode distance). The coated thin film onto AISI 1050 stainless steel characteristics were also investigated. After the deposition, surface morphology was analysed by Scanning electron microscope (SEM), Energy-dispersive X-ray spectroscopy (EDS), Atomic force microscope (AFM). Abrasion of samples was tested. As a result of abrasion test the PTFE plasma processes more effective than C_3F_6 coating. This Work has been supported by TUBITAK TEYDEB project no:9100036

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