

Evaluation of Mechanical and Tribological Properties of Composite Materials

Satyaveer Singh¹, S.K.Bhardwaj², Pawan Kumar Taneja³

^{1,2,3}Department of Mechanical Engineering, D.I.T.M.R Faridabad Haryana

ABSTRACT

This project gives “Evaluation of Mechanical and Tribological Properties of Composite Materials” advance mechanical properties of composite material and making a new composite material with the help of preparation of specimen and performs various tests. Composite material are used in various place due to their light weight such as aerospace, automotive, smart material and chemical industries. This project works represent the results of mechanical and tribological test of composite. The mechanical and tribological properties of 20wt. % short glass fiber reinforced 80 wt. % POM and 20 wt. % PTFE blend were studied. Tensile strength of the POM/PTFE blend reinforced with 20wt. % short glass fiber is high when compared with pure polyblend. i.e. its value increases from 46.5N/mm² to 75.36 N/mm² which is a 63% increase.

Keywords: Composite materials, Fillers, Mechanical properties of composite material, scanning electron microscopy.