

Abstract: Teflon AF is a new generation of Teflon fluorocarbon resins with high performance. Teflon AF, which is Teflon films in amorphous forms, has many advantageous features, such as optical clarity (complete transparency at 190 nm) and low refractive index (1.29 ~ 1.31) outstanding electrical properties (lowest dielectric constant of any plastic even at GHz), very good mechanical properties including strength, high thermal, and chemical stability, as well as limited solubility in selected perfluorinated solvents, etc. This amorphous fluoropolymer has potential applications in high science and technological areas. It can be used as optical materials including fiber and integrated optics, electronic materials (semiconductors and processing materials, dielectric and release materials), specialized chemical/industrial materials and biomedical materials, etc