

The present study was prospective in nature and its purpose is twofold. It consists, on the one hand, to identify and characterize mineral fillers, secondly, to determine the dielectric properties of materials prepared using the epoxy resin mixed with local inorganic fillers, very rich in silica such that: sandy, pozzolan, cullet and a small calcium carbonate amount. This application allows us to use the matrix developed as an electrical insulator. The results of our study show that the use of fillers further improves the dielectric properties of these matrices. After 32 days of conditioning, the values of capacitance and resistance obtained are very remarkable. Comparing our results with previous work with the addition of pure silica, we note that our composites have better properties at a low cost. The hygro-thermal influence is much less important for the loaded resin. Our composites may be subject to external environmental influences and they have a range of wide usage in dielectric materials