Abstract : The electret hybrid film consisting of porous PTFE and Teflon FEP is prepared through co\_melting method at high temperature and with corona charging. Their piezoelectric responses are investigated by means of decay measurement of isothermal piezoelectric coefficient and charge density. The piezoelectric mechanism is discussed according to the theoretical model proposed by Kacprzyk et al. The results indicate that the piezoelectric responses not only result from charge density but also correlate to the charge distribution in the bulk of hybrid film.