Since the technology concerning gamma radiation showed a rapid development, it became a necessity to be protected from it. One of the common shielding materials for this purpose is concrete. This study aims to give the effect of pumice rate on the gamma radiation attenuation coefficients of normal concrete (\( \rho = 2.476 \text{ g cm}^{-3} \)) containing different rates of pumice mineral. Pumice, for which the Golcuk region in Isparta province is rich, is a volcanic originated spongy and porous mineral. Although it is a light material, it has a high comprehensive strength and heat resistance. So it became a common construction material in buildings. In the study, the variation of attenuation coefficients for concretes of different pumice rates were measured for 662, 1173 and 1332 keV photons using a NaI(Tl) detector. The experimental values were compared with the theoretical ones obtained by XCOM code.