Radiation is an energy that transmitted as energy packages as waves, particles or photons. Radiation is a phenomenon that we live together and always exists in the nature. Radio waves that enable radio and television communication, x-rays used in industry and solar rays are some types of radiation which we can meet in our daily lives. When it’s thought that it is inevitable to meet with the harmful effects of radiation, the cloth used is the most significant way of shielding without a concession to its facility of use.

A textile product is composed of lots of thin fibers. Parameters that define the thread’s view, properties and structure are raw material, fiber type and crosscut shape in width, thread's type, number and scale. Thread is a linear textile form composed of fibers. So, all properties of fibers are indirectly transferred to threads. The physical and chemical properties and composition of thread forming fabric give information about fabric's property. Radiation shielding, liquid shielding, non-holding stain etc. properties can be acquired by different methods applied to fabric after woven. Moreover, parameters like the fabric's color, knitting, gram, thickness, density, technology of fabric form effect fabric's radiation shielding property.

In this study, radiation shielding of different fabric types that can be used in cloth production will be theoretically and experimentally calculated and it will be examined that how much it is possible to protect from radiation in daily life. Thanks to this information, the designs of cloths which will be able to decrease the harmful effects of radiation to minimum by shielding without a concession to comfort will be provided.