

### 7.1 Absorption of Beta Radiation: $E(\text{Max}) = 1 \text{ MeV}$

Type of Material	Percent Absorption
Neoprene gloves	50
Cotton or rubber gloves	30
Coveralls	30
Plastic suit (not the hood)	50
Safety glasses (lens)	90
Plywood (7 mm or more)	100

The only way to detect beta fields is with a beta survey meter; use one if you suspect the presence of beta fields. Please note that most beta meters are directional and could under-respond depending on the configuration of the beta source.

Section 20.2 gives thicknesses of various materials for absorption of beta particles of different energies.

#### Noble Gases

Noble gases are an external hazard because they do not react chemically within the body. When inhaled they are immediately exhaled. Noble gases decay to particulates, and during this decay beta and gamma radiation is emitted. Contamination found on a person caused by these particulates can be removed by showering or waiting a short time for decay.