

**Conclusion:**

Analyzing the results of Linear Absorption Coefficient, it is found out that, the thermalisation of radiation has become uniform and better on adding filler especially graphite filler for gamma irradiation, the radiations are not thermalised in pure epoxy sample and violate between 12 to 15 mm thickness. Hence the absorption of the radiation may be similar, but the thermalisation of radiation is also very important in absorption of radiation uniformly. The combination of Epoxy + Graphite + HALS + TVP has proved very good in sense of absorption of radiation and thermalisation as well. Overall results for gamma absorption are quite close to the traditional lead and tantalum material. Which itself is a good finding that, epoxy or filled epoxy can be used in replacement of tantalum sheet with good availability, ease of fabrication, and overall low in cost.

In case of neutron absorption, the combination of Epoxy + graphite + HALS + TVP has proved very good in sense of absorption. However it is not that much comparable with traditional materials, but thickness can be optimized.

The effect of stabiliser is also significantly identified that, combination of HALS + UV absorber is good for elongation but not proved to be good for radiation absorption. Whereas the combination of HALS + TVP has proved good radiation absorber; in thermo mechanical properties, in thermal properties and consequently in life time.

The life time at 50° C is extremely good for Epoxy + Graphite + HALS + TVP, approx. 45 years rather than pure epoxy of approx 11 years.