

**From:** Emerson, Robert (US-ROM1)

**Sent:** Thursday, May 17, 2018 3:48 PM

**To:** Whitener, Clayton (US-ROM1) <[Clayton.Whitener@PolyOne.com](mailto:Clayton.Whitener@PolyOne.com)>

**Subject:** Gamma Radiation Sterilization of HDPE

Clayton,

Attached is some information that generally lists the gamma sterilization effect on some plastics.

It is recommended that the customer mold parts and test the performance of the part after sterilization. 10 Mrads seems to be a standard dose for testing. He would need to verify that the part can function after sterilization. The dose of radiation in time will be dependent on what is being sterilized. So based on 1/8" x 2" x 2" molded plaques it looks like it can take **1000 Mrads before it becomes brittle**. Your customer will have to test his part to determine how many cycles it can handle prior to failure.

Hope this helps.

Regards,

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