Medical device sterilization can also provide **performance enhancing** characteristics: When sterilized with e-beam technology, medical devices can be improved to provide wear resistance, tensile strength, and thermal stability amongst other benefits.

A unique synergistic treatment process available from E-BEAM Services, Inc. combines medical device sterilization with performance-enhancing crosslinking. The electron beam irradiation process assures product sterility even as it creates value-added performance benefits for improving wear resistance, tensile strength, corrosion resistance, barrier properties, and impact resistance of polymeric medical products.

Many sterilization processes degrade the product and packaging, or add chemicals, but with E-BEAM’s treatment, product sterilization and improvements are simultaneous. The distinctive one-step electron beam irradiation process employed by E-BEAM Services creates a permanent crosslinking between the molecules within the polymer structure. Crosslinking is known to significantly improve a wide variety of commercially desirable properties, including: tensile and impact strength, solvent and chemical resistance, abrasion resistance, and thermal stability.

This precise, high-energy, environmentally responsible technique treats the finished product, already packaged, without the introduction of chemicals or additives. The degree of treatment is controlled by the level of dose required to sterilize the product or to deliver the performance.

E-BEAM Services, Inc. enables medical device manufacturers to meet demanding new design requirements and add value to their existing product lines by offering smaller size devices with higher performance characteristics. E-BEAM Services offers a safe and efficient combination sterilization and crosslinking process for improving the performance and extending the service range of a wide variety of biomedical products, including: molded parts, tubing, woven and non-woven articles.

E-Beam Services, Inc. offers medical device manufacturers a unique combination of benefits that combine safe and effective product sterilization with performance-enhancing characteristics to extend wear and achieve improved temperature, pressure, and chemical resistance.