

Glossary

Crosslinking	Ties all the polymer molecules together. When the molecules are tied together, they aren't easily torn apart from each other. Crosslinking makes both elastomers and plastics stronger, improving physical properties such as tensile, elongation, and tear strength.
Crosslinked Polyethylene Foam	A high density closed cell foam characterized by a compact feel and resistance to water that enables the material to be fabricated, thermoformed or compression molded in many ways. It has many of the same properties as polyethylene foam but also has the ability to protect class "A" surfaces and is consequently used extensively the packaging of medical products and equipment.
ASTM D3575	Standard Test Methods for Flexible Cellular Materials Made From Olefin Polymers, or blends of olefin polymers with other polymers
Compression Set	The residual decrease in thickness of a test specimen measured 30 minutes or 24 hours after removal from a suitable loading device in which the specimen had been subjected for a definite time to compressive deformation under specified conditions of load and temperature
Elongation	The percent that a specially shaped sample will stretch from its original length before tearing or breaking. Expressed as a percentage, this test is used to measure the length of stretch in a material before it breaks. - (Test Method ASTM D3575)
Hardness	The resistance to indentation, as measured under specific conditions.
Polyethylene (PE)	A thermoplastic composed of monomers of ethylene.
Skin	A relatively dense layer at the surface of a cellular foam material. This layer is the result of exposure to heat and/or contact with a mold during the manufacturing process.
Tear Resistance	The force required to tear completely across a specifically nicked test specimen or right angle test specimen, by elongating at a specific rate.
Tear Strength	The ability of a piece of material to resist propagation of a cut made in the sample. Reference ASTM D-3575.
Tensile Strength	The force required to stretch a material without tearing.