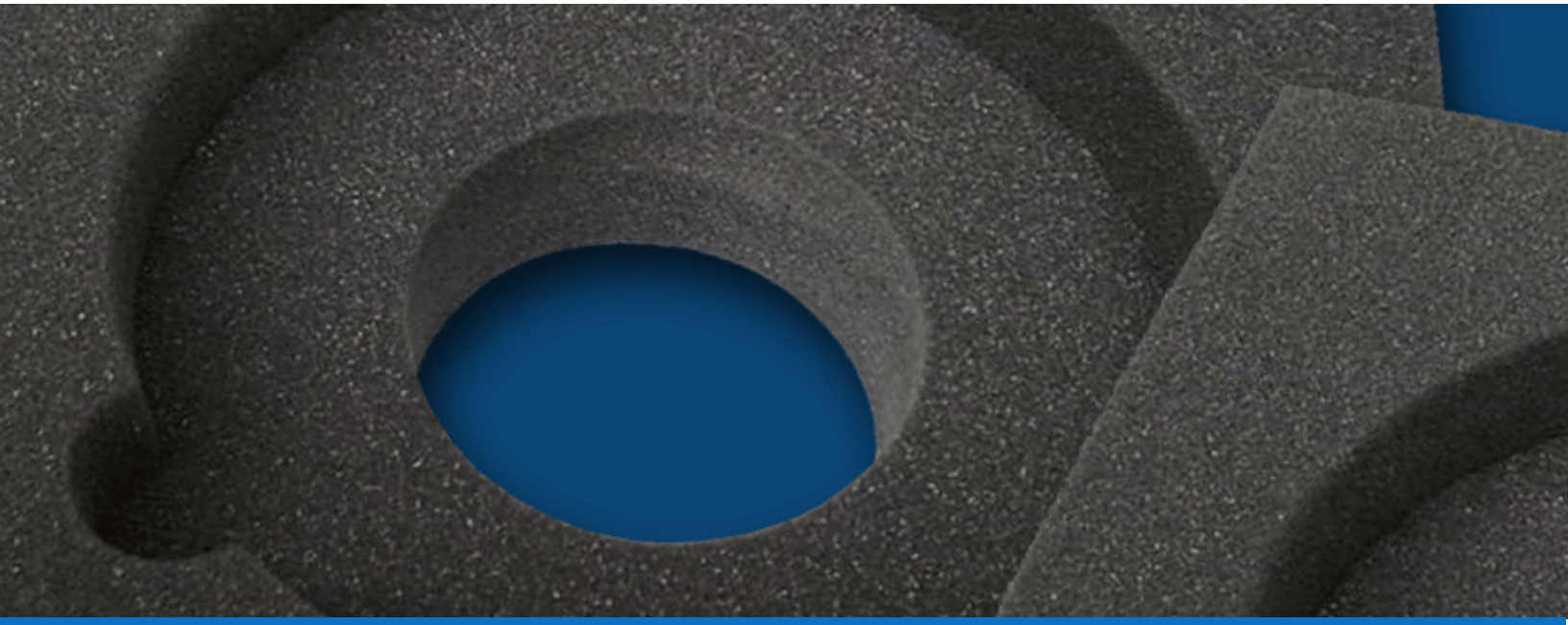
Eva explained, what is it?

by Monmouth Rubber & Plastics

Website version: http://monmouthrubber.com/eva-explained-what-is-it/



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EVA explained…

Ethylene-vinyl acetate (EVA) is the copolymer of ethylene and vinyl acetate. The weight percent vinyl acetate usually varies from 10 to 40%, with the remainder being ethylene.

The higher the VA content the more rubber-like the EVA resin is. EVA is a step up from straight polyethylene. They are both in the polyolefin family.

Broadly speaking, there are three different types of EVA copolymer, which differ in the vinyl acetate (VA) content and the way the materials are used.

2

The EVA copolymer

Low proportion of VA

The EVA copolymer, which has a low proportion of VA (approximately up to 4%), may be referred to as vinyl acetate modified polyethylene. It is a copolymer and is processed as a thermoplastics material – just like low density polyethylene. It has some of the properties of a low-density polyethylene. Generally considered as a non-toxic material.

Medium proportion of VA

The EVA copolymer, which has a medium proportion of VA (approximately 4 to 30%), is referred to as thermoplastic ethylene-vinyl acetate copolymer and is a thermoplastic elastomer material. It is not vulcanized but has some of the properties of a rubber or of plasticized polyvinyl chloride particularly at the higher end of the range. May be filled and both filled and unfilled materials have good low temperature properties and are tough.

High proportion of VA

The EVA copolymer, based on a high proportion of VA (greater than 40%), is referred to as ethylene-vinyl acetate rubber.

3 Conclusion

EVA is an elastomeric polymer that produces materials, which are “rubber-like” in softness and flexibility. The material has good low-temperature toughness, stress-crack resistance, hot and resistance to UV radiation.

Eva formulations are cured (crosslinked normally with peroxides) they have good weathering, ozone resistance and are Sulphur free. Eva foams are available in very low densities under two PCF up to solid 60 PCF and up.

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