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Crosslinking of an Ethylene-Glycidyl methacrylate copolymer with amine click chemistry

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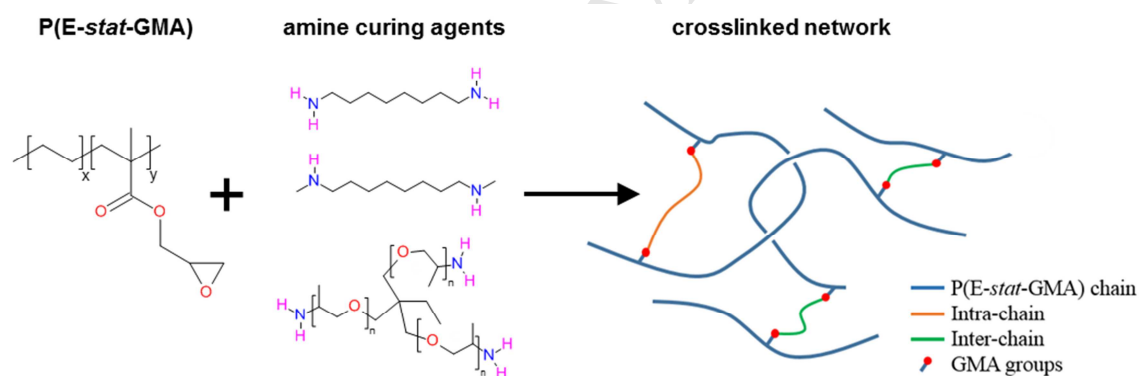
Graphical Abstract

Efficient crosslinking of a branched statistical ethylene-glycidyl methacrylate copolymer with bifunctional amine curing agents is demonstrated. The use of click chemistry opens up a by-product free alternative to traditional crosslinking with peroxides. A well-adjusted processing window around 120 °C permits extrusion of the copolymer and curing agent, followed by crosslinking at 160 to 200 °C.

Keywords: epoxy, glycidyl methacrylate, amine, crosslinking, polyethylene copolymer

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