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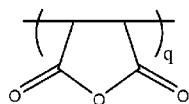
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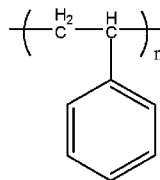
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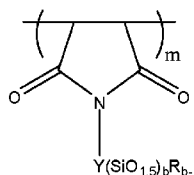
(54) Title: HARDENER COMPOUND FOR EPOXY SYSTEM



(I)



(II)



(III)

(57) Abstract: Embodiments of the present disclosure include a hardener compound for curing with an epoxy resin, where the hardener compound includes a copolymer having a first constitutional unit of the formula (I), a second constitutional unit of the formula (II), and a third constitutional unit of the formula (III), where each q, n and m is independently a positive integer; each b is independently selected from the group of 6, 8, 10 and 12; each Y is independently an organic group; and each R is independently selected from the group of a hydrogen, an organic group and a halogen. Embodiments of the present disclosure include an epoxy system that includes the hardener compound and an epoxy resin.