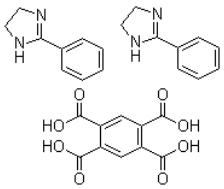
Product Data Sheet

VESTACHEMICALS
Specialty Raw Materials

Vicura MC-68

Vicura MC-68

Chemical Name:	Pyrromelletic Acid Diphenyl Imidazoline Salt
CAS No.:	54553-90-1



General

The curing mechanism between Vicura MC-68 and the epoxy resin is complex. Two parallel processes are taking place; direct reaction between the imidazoline and the epoxy group and homopolymerization of the epoxy resin that is catalyzed by Vicura MC-68. Compared to most of the powder coating systems where the optimal ratio between the crosslinker and the binder is close to the stoichiometric one, in the case of Vicura MC-68 the optimal ratio is generally determined empirically. For epoxy resins that are typically used for powder coatings (epoxy equivalent weights between 700 – 1000) amounts of 8,0 – 10,0 % of Vicura MC-68 are recommended as good starting points.

Technical data

Appearance	White very fine powder
Assay	≥99% min
Melting range	220 – 230˚C
Water content:	≤0.5% max

Application

Vicura MC-68 is an organic salt of polycarboxylic acid and cyclic amidine. It is used as a crosslinker in manufacturing of matt epoxy and polyester/epoxy hybrid powder coatings. Vicura MC-68 has more pronounced matting effect compared to Vicura MC-55. When used as a single crosslinker in formulating matt epoxy powder coatings gloss levels lower than 10 (Gardner 600) can be obtained. The gloss can be increased by partially replacing Vicura MC-68 with the "high gloss crosslinker" Vicura MC-31. The desired ratio between the two crosslinkers should be determined experimentally. In polyester/epoxy powder coatings the gloss level in the range of 10 – 70 (Gardner 600) is controlled by replacing part of the polyester with Vicura MC-68, while at the same time increasing the amount of epoxy resin. The curing reaction between Vicura MC-68 and the epoxy groups starts at temperatures above 180˚C. By increasing the temperature the curing cycles are getting quickly in the range typical for other thermosetting powder coatings

Packaging

Available packaging: 20KG carton boxes.