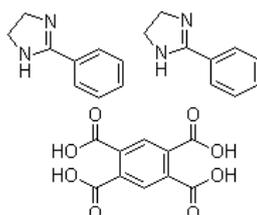

Vicura MC-55

Vicura MC-55

Chemical Name: Pyrrmelletic Acid Diphenyl Imidazoline Salt
CAS No.: 54553-91-2



General

The curing mechanism between Vicura MC-55 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-55. 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-55 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 6,0 – 9,0 % of Vicura MC-31 are recommended as good starting.

Technical data

Appearance	White or yellow fine powder
Assay	≥99%
Melting range	220 - 245 °C

Application

Vicura MC-55 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-55 can be used as a single crosslinker in formulating matt epoxy powder coatings where gloss of 20-25 (Gardner 600) is obtained. The gloss level can be increased by partially replacing Vicura MC-55 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 is controlled by replacing part of the polyester with Vicura MC-55, while at the same time increasing the amount of epoxy resin. The curing reaction between Vicura MC-55 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

Product Data Sheet

Available packaging: 20KG paper bags.

VESTACHEMICALS

Specialty Raw Materials