

EMC PACIFIC AUST. PTY LTD

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GUARANTEE DOCUMENT

EMC Pacific Aust Pty Ltd ("EMCPA") has been using Cycloaliphatic Epoxy Resin System (CEP) for 22 years (since 1997) in the moulding of insulators and bushings for the medium voltage power distribution industry.

The Araldite brand was launched by Ciba Geigy some 70 years ago in 1945, and CEP approximately 45 years ago. In 1997, Before EMCPA commenced production, we visited Ciba Geigy's Araldite facility in Basel, Switzerland and other suppliers and enquired closely regarding the history of CEP in outdoor conditions. Ciba brought an insulator into the electrical test room that had been outdoors for more than 30 years and demonstrated its electrical performance despite a faded appearance. Needless to say, EMCPA was satisfied with the long term performance of CEP and commenced production in Dandenong VIC Australia by mid 1997.

In 2010, EMCPA launched an improved formulation, still using CEP but employing a patented hydrophobic silica filler – 'H-Sil' This provided moisture repellant characteristics and resistance to absorption throughout the cast insulator.

In 2014 EMCPA adopted improved/modified CEP with impressive hydrophobic characteristics:

- improved intrinsic hydrophobicity of the cast insulator/bushing throughout the cast product
- hydrophobic transfer to pollutants which collect on the surface
- Hydrophobic recovery after simulated UV exposure

EMCPA gave the nomenclature of 'HH' to the updated system to denote Hydrophobic Resin System + Hydrophobic Filler. This combination is leading edge material science for the electrical distribution industry and ensures minimum leakage currents and maximum service life in outdoor applications.

GUARANTEE STATEMENT

EMCPA therefore states, with this history behind and the improvements made, provided the appropriate pollution / creepage rating product is selected for the environmental service involved that:

- 1. EMCPA 'HH' products are designed for service in outdoor power distribution installations up to 72kV for at least 25 years and likely much longer
- 2. Some fading and chalking of the surface may occur over time but the integrity of the insulator remains