

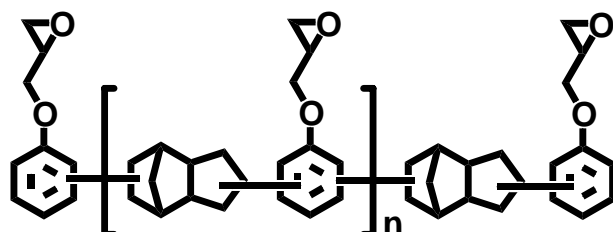
EPICLON[®] HP-7200 series

DCPD type epoxy resin

General description

EPICLON[®] HP-7200 series are multi-functional epoxy resins derived from poly-addition compound of dicyclopentadiene and phenol, and designed for application of high performance epoxy molding compound (EMC) for semi-conductor, especially for surface mount devices (SMD). The most advantage of these products is ultra low moisture absorption compared with other epoxy resins, such as cresol novolac type (ECN) or Biphenyl type epoxy resin. So HP-7200 series are expected to become new mainstream of epoxy resins in electronics applications, replacing ECN and Biphenyl type.

Chemical structure



Typical properties

	HP-7200L	HP-7200	HP-7200H	HP-7200HH
Appearance	Brownish marble lock	Brownish marble lock	Brownish marble lock	Brownish marble lock
Epoxy equivalent, g/eq	247	259	278	280
Softening point, °C	55	61	83	91
ICI viscosity, mPa.s	0.3	0.6	4.0	8.0
Hydrolyzable Cl content, wt ppm	30	50	60	70
Na ion, wt ppm	<1	<1	<1	<1
Cl ion, wt ppm	<1	<1	<1	<1

Evaluation formulation

	Parts by weight
EPICLON[®] HP-7200	71.3
Hardener: PHENOLITE [®] TD-2131 (Novolac type phenolic resin)	28.7
Accelerator: Triphenylphosphine	1.0

Curing schedule : 175°C x 5hrs.

Cured resin properties

Tg by DMA, °C	157
Moisture Absorption, 85°C/85%RH 300hours	1.05
Copper peel strength, kN/m	1.91
Coefficient of Thermal Expansion, ppm	52
Dynamic Modulus(215°C), MPa	16

Storage

EPICLON[®] HP-7200 series have shelf-life of at least 6 month if it is stored in a cool, dry area.