

Genable[®] 2400



Innovative Genable[®] platform technology for the incorporation of graphene into your formulation.

PRODUCT DESCRIPTION

A formulation-ready Genable[®] epoxy resin, Genable[®] 2400 dispersion has been developed to enhance the anti-corrosion performance of coatings on aluminium substrates by the use of a patented anti-corrosion additive.

Genable[®] 2400 dispersion consists of graphene nanoplatelets dispersed in epoxy resin (EEW = 190g/eq.). The graphene nanoplatelets are a synthesised form of graphene produced by a patented process.

PRODUCT INFORMATION

(Preliminary)

Appearance	Black liquid
Matrix	Epoxy resin (EEW = 190g/eq.)
Density (g/ml)	1.12 – 1.14
Viscosity (Pa.s)	50 – 75
Particle Size (D10)	5 – 15 microns
Particle Size (D50)	50 – 80 microns
Particle Size (D90)	120 – 150 microns
Shelf Life	3 months

USAGE

Graphene nanoplatelets produced using AGM's processes are "dispersion-ready", which means that the platelets can be incorporated into formulations using standard dispersion equipment. See overleaf for starting point formulation.

DIRECTIONS

Dispersion may show slight sedimentation during transportation or on storage. If a small amount has occurred during transportation or storage then the dispersion can be recombined by simple mechanical mixing thoroughly with a spatula, palette knife or mechanical stirrer before use.

STORAGE

Product should be stored at room temperature, in the original containers and kept tightly closed. Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials and food and drink. Keep container sealed until ready for use.

SAFETY

Wear appropriate PPE. Use the minimum quantity of product required for a particular process. Use only in well-ventilated areas, preferably in an enclosed system. Provide appropriate exhaust ventilation at places where aerosols/dust may be formed. Handle and open container with care. Keep in the original container or an approved alternative made from a compatible material. Always close containers tightly after removal of the product. Empty containers retain product residue and can be hazardous. Do not re-use container. Dispose of materials in accordance with local regulations.

STARTING POINT FORMULATION GUIDE

	Base Paint	Base Paint plus Non-Metallic Anti-Corrosion Additive
	Wt/Wt %	Wt/Wt %
Epoxy (EEW = 190g/eq.)	21.34	16.34
Bentonite thixotropic	0.37	0.37
Aromatic solvent	2.02	2.02
Adhesion resin	0.25	0.25
Dispersant	0.41	0.41
Aliphatic solvent	15.68	15.68
White pigment	11.18	11.18
Filler	44.47	44.47
Epoxy (EEW = 190g/eq.)	4.27	4.27
Genable® 2400	0	5
Total	100	100
pvc	36	36

Incorporating graphene into an epoxy based paint system: The preferred stage to introduce the dispersion ready **Genable® 2400** into the manufacture of the paint is during the let-down stage phase. This can be achieved by use of typical dispersion equipment used for the let-down stage.

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