

COATING RESINS

TECHNICAL DATA

CRAYAMID 125C

SALES SPECIFICATION

Non-volatile content, % @ 150°C (ISO 3251)	94 - 100
Viscosity in CPS at 40°C	700 - 900
Colour, Gardner scale (ISO 4630)	≤ 11
Acid value, mg KOH/g (ISO 3682)	NA
Amine value, mg KOH/g (PerChloric Method)	345 - 370

OTHER PROPERTIES

Density at 20°C	0.97
Typical hydrogen Equivalent Weight	130

PRODUCT INFORMATION :

CRAYAMID 125 is a medium viscosity liquid amino polyamide resin used in conjunction with epoxy resins to produce high build coatings and structural and laminating adhesives. It is used where the prime requirement are fast cure and flexibility. It is compatible with many synthetic resins, varnishes , oils and other media.

RECOMMENDATIONS FOR USE :

The selection of a particular grade of epoxy will depend upon the end use of the product. It is recommended that for high build coating it is always recommended to use low molecular weight epoxy. In solvent based coatings medium molecular weight and unmodified liquid epoxy resins may be used , while for adhesive applications either the unmodified or modified liquid epoxy resins are recommended. While the mixing ratio using **CRAYAMID** polyamides is not critical, optimum performance of the coating is achieved by stoichiometric mixing of the epoxy resin and **CRAYAMID 125**. The mix ratio is calculated on the basis of one Active Hydrogen Equivalent weight of the polyamide resin, will react with each epoxy group in the base resin. The AHEW of the polyamide resin **CRAYAMID125** is typically 130 on solid resin. Considering that each epoxy reacts with one active hydrogen the mix ratio of **CRAYAMID125** and an epoxy resin with epoxide equivalent approx. 500 is calculated as follows;

Resin	Mass of solid Resin	Mass of Resin Solution
CRAYAMID125	130g	130g
75% Epoxy resin 2	500g	667g

The resulting epoxy:polyamide mix ratio in this case is approx.

Impart flexibility and adhesion at the expense of solvent resistance.

CURE RATE:

A 75:25 epoxy resin : **CRAYAMID125 blend** on solid resin will reach a tack free time in 180 mins. At 25°C. Film will obviously dry more rapidly if higher molecular weight epoxy resins are used. An induction period to ensure complete compatibility is recommended. Cure of epoxy::polyamide can be accelerated by the addition of catalysts and in particular Tris (dimethylaminomethyl) phenol types which are recommended for use at a level of 1 – 5 % (calculated by weight on total resin). It should be noted, that when catalysts are employed pot life will be reduced and there may be an adverse effect on flexibility and colour.

POTLIFE :

Reaction between the epoxy resin and **CRAYMID 125** will commence as soon as the reactants are mixed . A75:25 epoxy: CRAYAMID125 mixture on solid resin will have a limited pot life. Solvents will have a considerable effect on pot life e.g. alcohols tend to reduce it's pot life where as esters and ketones tend to extend it. Since ketones and esters form complexes with amino polyamides on storage , these solvents should only be incorporated into the epoxy resin component.

ADHESIVES:

CRAYAMID 125 : epoxy resin systems demonstrate excellent adhesion to a wide variety of surfaces , such as glass , wood , ceramics , masonry, leather and plastic substrates. The pot life of a **CRAYAMID 125** : epoxy resin adhesives will cure at ambient temperature but cure time can be reduced by heating to elevated temperature.

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80:20 based on solid resin. Excess polyamide in a coating will

NOTES:

1. Unmodified epoxy resin epoxide equivalent 200
Epikote 828 - shell Chemicals.
2. Epoxy resins epoxide equivalent approx. 500
Araldite 6100 - Cieba Geigy limited.
3. Modified epoxy resins epoxide equivalent approx. 200
Epikote 915 - Shell Chemicals