

Advanced Materials.

Electrical Insulation Materials

Light Electrical



® Araldite Casting Resin System

Araldite®	DW 0131 White
Araldite®	DW 0132 Yellow
Araldite®	DW 0133 Red
Araldite®	DW 0134 Green
Araldite®	DW 0135 Blue
Araldite®	DW 0136 Brown
Araldite®	DW 0137 Black

Colouring pastes for epoxy casting resin systems

The uniform and homogeneous colouration of filled or unfilled Araldite casting resin systems

Applications

The colouring paste is preferably added to the resin and blended with it to produce a homogeneous mix

Processing

Minor effects on the processing and end properties of a casting resin systems
Light and heat resistant

Properties

Product data

(Guideline values)

Solvent free colouring pastes based on bisphenol A epoxy resin

**Araldite DW 0131
to DW 0137**

Flash point	DIN 51 758	°C	>200
Vapour pressure at 180°C		Pa	10
Size of pigment particles		µm	≤50
As supplied form	slightly thixotropic paste		
Hazardous decomposition products	Carbon monoxide, carbon dioxide and other toxic gases and vapours if burned		
Disposal	Regular procedures approved by national and/or local authorities		

Storage

Store the components in a dry place at 18-25°C, in tightly sealed original containers. Under these conditions, the shelf life will correspond to the expiry date stated on the label. After this date, the product may be processed only after reanalysis. Partly emptied containers should be tightly closed immediately after use. For information on waste disposal and hazardous products of decomposition in the event of a fire, refer to the Material Safety Data Sheets (MSDS) for these particular products.

Processing

The filled resin component should be stirred and homogenized in the original container before use.

The casting mix is best prepared by heating the resin up to 40-50°C before stirring in the hardener. Brief degassing of the mix under 5-10 mbar vacuum improves the mixture homogeneity and enhances the dielectric properties of the castings.

Colouration of the resin component

The colouring paste should normally be added to the resin component and mixed with it until a homogeneous colouration results. Prefilled, highly viscous resin components are best heated to 40-60°C to facilitate uniform dispersion of the colouring paste.

When pigmenting unfilled resins, the covering power of Yellow (DW 0132), Red (DW 0133), Green (DW 0134), Blue (DW 0135) and Brown (DW 0136) can be enhanced by adding some White (DW 0131). Depending on the amount of White added, shades ranging from pale to dark can be obtained.

Coloured resin or mixes of several colouring pastes and resins are stable for some considerable time if stored at room temperature.

As a rule, 0.5 to 5.0 parts by weight colouring paste are added to 100 parts by weight resin. Such additions up to 5% on the weight of the resin have virtually no effect on the end properties of an unmodified resin-to-hardener mix. If more than 5% colouring paste is used, the amount of hardener used will have to be increased accordingly.

Colouration of the hardener component

Hardeners can be coloured to a limited extent (e.g. to facilitate visual control of a mixing operation) provided that

- not more than 2 parts by weight are added to 100 parts by weight hardener
- the hardener and colouring paste are blended immediately to produce a homogeneous mix.

Hardener components coloured as described will remain stable at room temperature for several weeks.

Colour of castings

When seeking to match a colour it should be kept in mind that the obtained shade will depend on the thickness of the epoxy insulation, the resin / hardener system utilized, the type and amount of filler and other additives incorporated in the mix.

The processing of coloured casting resin in contact with the air at temperatures of 160°C to 180°C, or prolonged postcuring at temperatures above 150°C, may lead to darkening of the resin system and to undesirable changes in the colour shade of the surfaces of castings.

Industrial hygiene

Mandatory and recommended industrial hygiene procedures should be followed whenever our products are being handled and processed. For additional information please consult the corresponding Safety Data Sheets and the brochure "Hygienic precautions for handling plastics products".

Handling precautions

Safety precautions at workplace:	
protective clothing	yes
gloves	essential
arm protectors	recommended when skin contact likely
goggles/safety glasses	yes
respirator/dust mask	recommended
Skin protection	
before starting work	Apply barrier cream to exposed skin
after washing	Apply barrier or nourishing cream
Cleansing of contaminated skin	Dab off with absorbent paper, wash with warm water and alkali-free soap, then dry with disposable towels. Do not use solvents
Clean shop requirements	Cover workbenches, etc. with light coloured paper. Use disposable beakers, etc.
Disposal of spillage	Soak up with sawdust or cotton waste and deposit in plastic-lined bin
Ventilation:	
of workshop	Renew air 3 to 5 times an hour
of workplace	Exhaust fans. Operatives should avoid inhaling vapours.

First Aid

Contamination of the **eyes** by resin, hardener or casting mix should be treated immediately by flushing with clean, running water for 10 to 15 minutes. A doctor should then be consulted.

Material smeared or splashed on the **skin** should be dabbed off, and the contaminated area then washed and treated with a cleansing cream (see above). A doctor should be consulted in the event of severe irritation or burns. Contaminated clothing should be changed immediately.

Anyone taken ill after **inhaling** vapours should be moved out of doors immediately. In all cases of doubt call for medical assistance.

Note

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