

Advanced Materials**Araldite® AY133 / HY133 LP****Construction Adhesives****DATE SHEET****Araldite® AY133 / HY133 LP**

Liquid form, two components, formulated epoxy, adhesive with low viscosity

Description

Araldite® AY133 / HY133 LP is a two component, room temperature curing epoxy liquid adhesive; it is particularly recommended as bonding agent between new and old concrete, also can be used as concrete repair mortar. It can be bonded with wide variety of materials including metal, ceramics, concrete and common substrates.

Properties

- Water proofing and good chemical resistance
- Solvent free, low viscosity, good flow and good penetration
- Strong bond with a wide variety of materials
- Low shrinkage

Typical Product data

	Araldite® AY133 (Resin)	Hardener HY133 LP	Mixed adhesive
Colour (visual)	Colourless Liquid	Yellow liquid	Pale Yellow Liquid
Specific gravity	1.14	0.96	1.09
Viscosity at 25°C (cps)	~ 3800	~ 70	~ 550

Processing**Pretreatment**

The strength and durability of a bonded joint is dependent on proper treatment of the surfaces to be bonded. Joint surfaces should be dried and cleaned in order to remove all traces of loose particles, oil, grease and dirt.

Application of adhesive

Araldite® AY133 and Hardener HY133 LP should be thoroughly mixed together in the below mixing ratio.

Mix ratio	Parts per weight
Araldite® AY133	100
Hardener HY133 LP	40

Equipment maintenance

All tools should be cleaned with hot water and soap before adhesives residues have had time to cure. The removal of cured residues is a difficult and time consuming operation. If solvents such as acetone are used for cleaning, operatives should take the appropriate precautions and, in addition, avoid skin and eye contact.

Typical cured properties

The figures were determined with typical production batches using standard testing methods. They are provided solely as technical information and do not constitute a product specification.

Mechanical properties

Compressive strength Cured 7 days	GB/T 2569 (25 °C)	80N/mm ²
Tensile strength Cured 7 days	GB/T 2568 (25 °C)	50N/mm ²
Flexural strength Cured 7 days	GB/T 2570 (25 °C)	90N/mm ²
Lap Shear Strength (St-St)* Cured 7 days	GB/T 7124 (25 °C)	18N/mm ²
% Elongation Cured 7 days	GB/T 2568 (25 °C)	2.5%

* Lap shear strength = LSS, St = Steel

* Steel are pretreated with sand blasting

Gel time 100g@25 °C	Temperature	Time
	10 °C	>16 hrs
	25 °C	6-7 hrs
	30 °C	4-5 hrs

Open time	Temperature	Time
	10 °C	24 hrs approx
	25 °C	9-16 hrs
	30 °C	6-9 hrs

Storage

Araldite® AY133 / HY133 LP may be stored up to 2 year at 18-25° C provided the components are stored in sealed containers. The expiry date is indicated on the label.

Caution**Handling
Precaution**

Our products are generally quite harmless to handle provided that certain precautions normally taken when handling chemicals are observed. The uncured materials must not, for instance, be allowed to come into contact with foodstuffs or food utensils, and measures should be taken to prevent the uncured materials from coming in contact with the skin, since people with particularly sensitive skin may be affected. The wearing of impervious rubber or plastic gloves will normally be necessary; likewise the use of eye protection. The skin should be thoroughly cleansed at the end of each working period by washing with soap and warm water. The use of solvents is to be avoided. Disposable paper – not cloth towels – should be used to dry the skin. Adequate ventilation of the working area is recommended. These precautions are described in greater detail in the Material Safety Data Sheets for the individual products and should be referred to for fuller information.

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