

Advanced Materials**ARALDITE® GY 40100****Specialty Components****DATA SHEET****Masterbatch of Bisphenol-A based epoxy resin with 2% MIRALON® pulp**

Applications ARALDITE® GY 40100 is a specialty component designed to create conductive material. It is suitable for the formulation of solvent-free coatings, flooring screeds, troweling compounds, etc. when cured with polyamines, polyamidoamines or their adducts.

Benefits

- Ultralow solid loading levels to provide electrical conductivity even at 0.01%
- Easy to mix solution with no requirement for heating prior to mixing
- Preserves and enhances mechanical properties and conductivity maintaining a low density
- Enables production of conductive materials with bright colors
- Can be transported and stored with no special handling requirements

Properties General purpose, liquid ARALDITE® epoxy resin.
Excellent mechanical properties and resistance to chemicals, which can be modified within wide limits by using various hardeners and fillers.

Key data	Specified key data		
	Appearance (visual)	Black paste	
	Viscosity 25°C (ISO 3219:1993)	35000 - 45000	[Pa.s]

Specified key data are individually checked throughout and guaranteed.

Typical key data

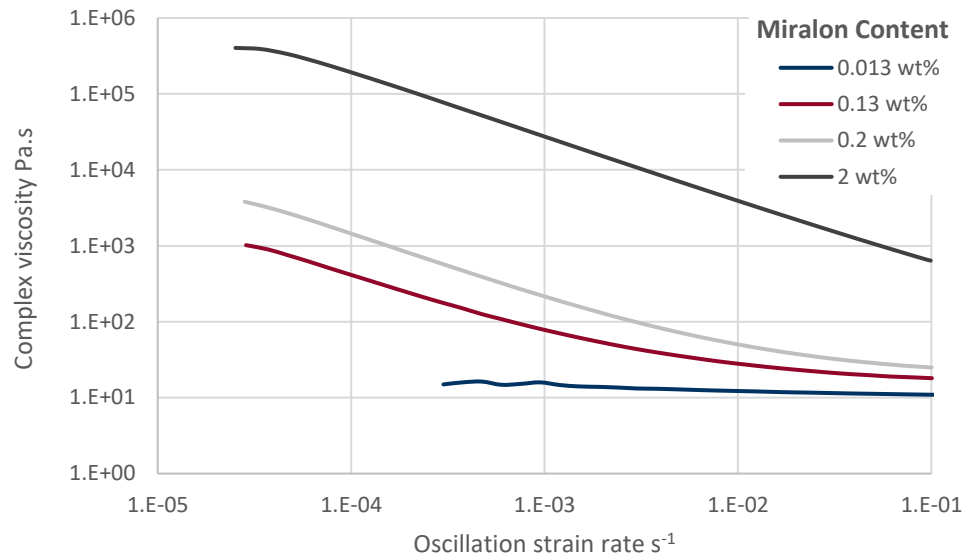
Medium epoxy equivalent (ISO 3001)	189	[g/eq]
Complex Viscosity at 25 °C and 0.1 s ⁻¹ (shear thinning)	630	[Pa.s]
Vapour pressure at 20 °C (balance)	≤ 0.01	[Pa]
Density at 25 °C (ISO 1675)	1.17	[g/cm ³]
Flash point (Pensky Martens, ISO 2719)	≥ 200	[°C]
As-supplied form	Viscous liquid	
Odour	slight	
Shelf life (at storage temperature between 2 - 40 °C) (see expiry date on original container)	several years	
Hazardous decomposition products (when disposed of in fire)	carbon monoxide, carbon dioxide and other toxic gases and vapours	
Disposal	regular procedures approved by local authorities	

Typical key data are spot checked; the values are typical for the product and are indicated for information only. The values are not guaranteed.

Viscosity

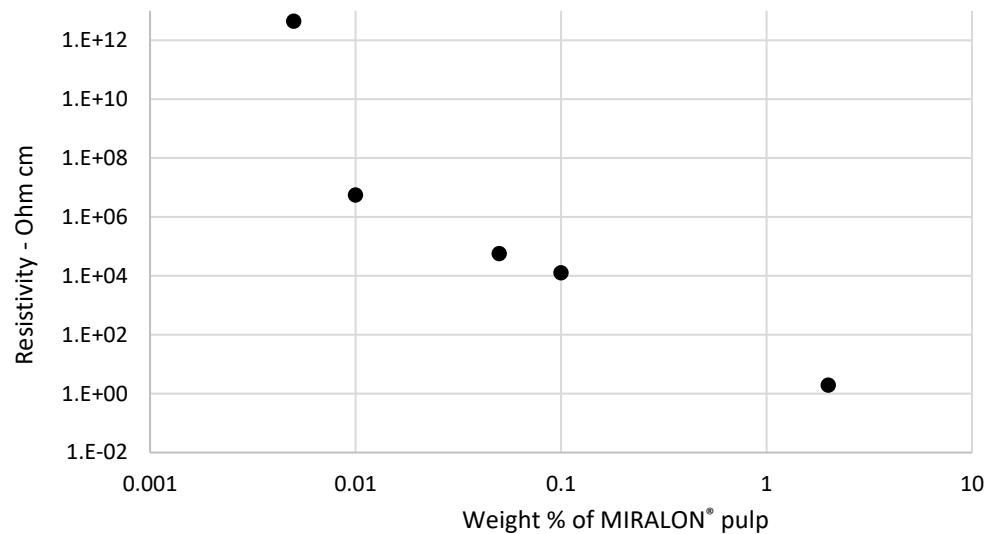
The product has a shear thinning behaviour, *i.e.* viscosity is dependent on shear rate

Typical values of complex viscosity at 25°C for different strain rate in Pa.s.
Measurements performed on a DHR-3 rheometer with a plate-plate geometry of 25mm diameter, 0.1 % strain, Gap of 1mm.



Electrical resistivity after dilution

Typical level of electrical resistivity at different dilution levels of MIRALON® pulp in formulated systems ARALDITE® GY250/ARALDITE® GY 40100- ARADUR® 3403
Resistivity measurement based on ISO 1853 and ISO 3915 depending on level of conductivity



Storage

ARALDITE® GY 40100 should be stored in a dry place, preferably in the sealed original container, at temperatures between 2 and 40 °C. The product should not be stored exposed to direct sunlight.

ARALDITE® GY 40100 may crystallize if stored for prolonged periods under certain conditions. If this occurs, it can be restored to its original condition by heating it to 70 - 80 °C and stirring it thoroughly.

Handling precautions

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

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