



Redux® 870 A/B

Two Component Shimming and Potting Epoxy
Paste Adhesive

Product Data

Description

Redux 870 A/B is a two component high performance epoxy paste adhesive, ideal for use as a Liquid Shim or for potting applications. This high temperature performing thixotropic adhesive has been specially formulated for bonding of fibre-reinforced composite and metal substrates.

Qualifications

Redux 870 A/B is qualified to AIMS 10-07-001

Features

- Thixotropic, gap filling high performance liquid shim adhesive
- Easy 2 : 1 volume mix ratio – available in dual-cartridges with static mixers
- Room temperature curing
- Long working life at ambient temperatures
- Excellent compression and shear properties
- High temperature performance

Product Data

Property	Redux 870 A	Redux 870 B	Mixed Adhesive
Appearance (Visual)	Dark Grey Paste	Off White Paste	Grey Paste
Specific Gravity	1.20	1.10	1.16
Viscosity at 25°C	Thixotropic	Thixotropic	Thixotropic
Non Slump (Bead on Vertical Surface)	-	-	> 5mm

Instructions for Use

Pretreatment

It is essential that all substrates to be used are free of contamination and are in as ideal a state for bonding as possible. As pretreatment will significantly vary dependent on substrates being used, please refer to the Hexcel publication Redux Bonding Technology for optimum procedures.

Processing

Mix Ratio	Parts by Weight	Parts by Volume
Redux 870 Part A	100	100
Redux 870 Part B	45.5	50

Resin and hardener should be blended until they form a homogenous mix.

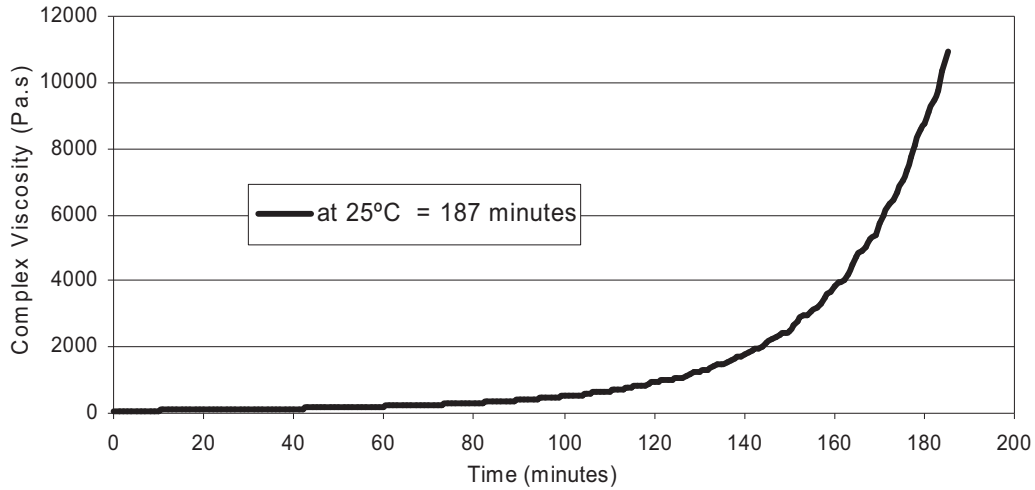
Storage

Redux 870 A/B may be stored for up to 12 months at room temperature providing the components are stored in sealed containers. The expiry date is indicated on the label.



Application Time

Redux 870 Working life (AITM 3-004)



Development of Shore D Hardness at 25°C:

Drilling Time (Shore D 75)	7½ hours
Fastener Time (Shore D 78)	8 hours
Shore D after 5 day 23°C cure	82

Typical Cured Properties

All the performance values given in this data sheet are based on experimental material with test results obtained under laboratory conditions. They are typical values expected for Redux 870 A/B, they are provided solely as technical information and do not constitute a product specification

Tensile Lap Shear Strength - Test Method EN2243-1

Cured 5 days at 23°C. Bond area : 25 x 12.5 mm

Substrate	Test Temperature	Values
2024 T3 Aluminium Alloy	23°C	43 MPa
(CSA pretreated, Unprimed)	80°C	27 MPa
	120°C	22 MPa
	150°C	11 MPa

Compression Strength at 23°C - Test Method ISO 604*

Cured 5 days at 23°C 98 MPa

*(36.8 mm high cylinders, 12.7 mm dia.)

Handling and Safety Precautions

Hexcel products are safe to use providing that certain precautions, normally taken when handling chemicals, are observed. The uncured materials must not 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. Impervious rubber or plastic gloves should be worn in addition to 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.

Disposal Recommendations

To avoid the possibility of a thermal runaway when disposing of surplus mixed product it is recommended to allow it to harden completely before disposal. Heat build-up during or after mixing of epoxy resins and hardeners is normal. The temperature rise depends on the amount of mixed material, the container shape and composition and the ambient temperature. Care should be taken to avoid an uncontrolled exothermic reaction by spreading the mixed material at room temperature in a thin film and leaving to cure in a well ventilated area. Refer to the MSDS for more information on the safety hazards of the individual components.

**Important**

All information is believed to be accurate but is given without acceptance of liability. Users should make their own assessment of the suitability of any product for the purposes required. All sales are made subject to our standard terms of sale which include limitations on liability and other important terms.

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Hexcel is a leading worldwide supplier of composite materials to aerospace and other demanding industries. Our comprehensive product range includes:

- Carbon Fibre
- RTM Materials
- Honeycomb Cores
- Carbon, glass, aramid and hybrid prepregs
- HexTOOL® composite tooling material
- Structural Film Adhesives
- Honeycomb Sandwich Panels
- Engineered Core
- Reinforcement Fabrics

For US quotes, orders and product information call toll-free 1-800-688-7734

For other worldwide sales office telephone numbers and a full address list please go to:

<http://www.hexcel.com/contact/salesoffices>