

Advanced Materials

Araldite® Kit K 75-2 Slow CI

Structural Adhesives

Proven impact-resistant Epoxy Crusher Backing System

Key properties

- Kit form allows easy on site mixing.
- Coloured hardener ensures visual control of mixing.
- Flows easily
- Formulations to suit most site conditions
- Meets Green Building Council of Australia VOC specification on Office Design V2 and V3 IEQ-13 and Interiors V1.1 IEQ-11 (refer to attachment below)

Description

Araldite Kit K 75-2 Slow CI is a two-part, epoxy system specially formulated for backing of wearing lining plates in crushers. Once cured, Araldite Kit K 75-2 Slow CI features high compressive strength, excellent impact resistance and good environmental stability.

Product data

| | Component A (resin) | Component B (hardener) | K 630 CI (mixed) |
|---|---------------------|------------------------|----------------------------|
| Colour (visual) | Beige | Blue | Light blue flowable liquid |
| Specific gravity | 1.65 – 1.75 | 1.00 – 1.05 | ca 1.6 |
| Viscosity at 25°C (Pas) | 17-20000 | 280 – 320 | 9500 - 10000 |
| Pot life, 100 cm ³ mix, 10°C | - | - | 125 -135 minutes |
| Pot life, 100 cm ³ mix, 25°C | | | 27 – 32 minutes |
| Pot life, 100 cm ³ mix, 35°C | | | 10 – 15 minutes |

Processing

Pretreatment

The strength and durability of a bonded joint are dependent on proper treatment of the surfaces to be bonded.

At the very least, joint surfaces should be cleaned with a good degreasing agent such as acetone, iso-propanol (for plastics) or other proprietary degreasing agents in order to remove all traces of oil, grease and dirt.

Low grade alcohol, gasoline (petrol) or paint thinners should never be used.

The strongest and most durable joints are obtained by either mechanically abrading or chemically etching (“pickling”) the degreased surfaces. Abrading should be followed by a second degreasing treatment

| Mix ratio | Parts by weight | Parts by volume |
|------------------------|-----------------|-----------------|
| Component A (resin) | 100 | 100 |
| Component B (hardener) | 7 | 12 |

Araldite Kit K 75-2 Slow CI is available in a 10 kg or 16 L kit. The hardener can simply be added into the resin container, mixed and poured directly into the crusher.

Application the lining backing material

- Seal all crevices with putty, plasticine or some other material, so that backing mixture does not leak out.
- Using a low speed electric drill, stir the resin, then add the hardener slowly with continuous mixing.
- Mix until uniform colour is obtained, but do not aerate the mixture.
- The mixture must be used as soon as possible after mixing.
- At higher ambient temperatures use Araldite® Kit K75-2 Slow .
- At lower ambient temperatures (typically below 20°C) use Araldite® Kit K75-2 Standard .

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 and avoid breathing vapours.

Rate of development of strength

| Temperature | °C | 10 | 25 | 35 |
|--------------------------|---------|----|----|-----|
| Minimum cure time | Hours | 22 | 5 | 2.5 |
| 80% of ultimate strength | Minutes | - | - | - |
| Full cure time | Hours | 27 | 12 | 4 |
| | Minutes | - | - | - |

Typical cured properties

Unless otherwise stated, the figures given below were all determined by testing standard specimens cured at 40°C for 16 hours. They are provided solely as technical information and do not constitute a product specification.

| Parameter | Units | Standard | Result |
|--|-------------|----------|-------------|
| Tensile Strength | MPa | ISO 527 | 30 -36 |
| Modulus in tension | MPa | ISO 527 | 8000 -8100 |
| Elongation at Break | % | ISO 527 | 0.5 |
| Compressive Strength | MPa | | 105-115 |
| Modulus in Compression | MPa | | 2660 - 2710 |
| Flexural Strength (N/mm ²) ISO 178 | MPa | | 45 - 55 |
| Modulus in Flexure | MPa | | 8000 - 8150 |
| Tensile Shear Strength (Al / Al) | MPa | ISO 4587 | 15 |
| Tensile Shear Strength (steel / steel) | MPa | ISO 4587 | 16 |
| Shore D Hardness | | | 90 |
| Tg | °C | DSC | 60 |
| Moisture Absorption (20 °C/10 days) | % by weight | ISO 62 | 0.08 |

(1N/mm²=1 MPa= 145 psi)

Peak Exotherm

Measured on a 700 g mix

140°C



VOC Content Test Certificate

Thursday July 23rd, 2009

Supplier: Huntsman Advanced Materials (Australia) Pty Ltd (Gate 3, Ballarat Road, Deer Park
Victoria 3023)

Sample Description: Araldite[®] Kit K75-2 Slow CI epoxy adhesive for construction use.

Date Tested: July 2009 (Tested by FORAY Laboratories – NATA Accreditation 1231)

Test Method: SCAQMD Method 304-91 Determination of Volatile Organic Compounds (VOC) in
Various Materials as referenced by South Coast Air Quality Management Division
(SCAQMD) Rule 1168.

Test Data:

| | |
|---|---|
| Specification | |
| Green Building Council of Australia Green Star Office Design V2 IEQ-13 Green Star Office Interiors V1.1 IEQ-11 | Araldite[®] Kit K75-2 Slow CI |
| Multipurpose Construction Adhesive 70 grams per Litre as VOC content material | 11 grams per Litre as VOC content material |
| Specification | |
| Green Building Council of Australia Green Star Office Design V3 IEQ-13 | Araldite[®] Kit K75-2 Slow CI |
| Multipurpose Construction Adhesive 70 grams per Litre as VOC content material | 11 grams per Litre as VOC content material |

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Storage

Araldite Kit K 75-2 Slow CI may be stored for up to 2 years at 5 – 35 °C provided the components are stored in sealed containers. The expiry date is indicated on the label.

**Handling
precautions****Caution**

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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