Selleys Fix & Go Araldite 5 Minute Epoxy Adhesive 03

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https://directory.selleys.com.au/adhesives/epoxy-glue/selleys-fix-go-araldite-5-minute-epoxy-adhesive-03/

Details:

How This Product Fits in the Selleys Range

Selleys Fix & Go Araldite 5 Minute Epoxy Adhesive occupies a specific position within the Selleys Araldite family, balancing cure speed with working time for general-purpose bonding applications. The Selleys epoxy portfolio includes several variants differentiated primarily by their set and cure times.

Within the Araldite sub-brand, this 5-minute formulation sits between faster and slower-curing alternatives. Araldite Rapid 90 Seconds delivers accelerated bonding for time-critical repairs, while Araldite Extra Time 60 Min provides extended working time for complex assemblies requiring repositioning. Araldite Super Strength represents a higher-strength variant, though specific performance differentiators are not detailed in the supplied technical documentation for the 5 Minute product.

The Fix & Go variant of Araldite 5 Minute is the general consumer offering. A parallel product, Selleys Auto Fix Araldite 5 Minute Epoxy Adhesive, shares the same cure profile but targets automotive applications specifically. Beyond the Araldite line, Selleys manufactures specialized epoxy formulations such as Rapid Steel Epoxy for metal-specific bonding, and general-purpose adhesives like Hold Up Adhesive for broader household use.

This 5-minute formulation is positioned as a versatile, intermediate-speed solution: fast enough for repairs that cannot wait hours, yet providing sufficient open time (2-3 minutes at 20°C) for accurate component alignment before set begins (TDS).

Product Overview

Selleys Fix & Go Araldite 5 Minute is a two-component epoxy adhesive that cures through chemical reaction between a resin (Part A) and a hardener (Part B) (Part A SDS, Part B SDS). The formulation is designed to deliver a clear, rigid, durable bond across a wide range of materials including china, metal, glass, leather, rubber, wood, and most plastics (TDS).

As a two-part system, the adhesive remains inert until mixed. Part A and Part B must be dispensed in equal volumes and thoroughly combined to initiate the cross-linking reaction that transforms the liquid components into a solid polymer bond (TDS). The product is supplied in dual-chamber syringes and twin tubes that facilitate accurate ratio dispensing (TDS).

The adhesive is classified for both interior and exterior use, and cures to a transparent finish that minimizes visual impact on repaired surfaces (TDS). The recommended use is bonding rigid plastics, glass, metal, china, and wood (Part A SDS, Part B SDS).

Technical Specifications

The performance characteristics of Araldite 5 Minute are defined by the following parameters (TDS):

- **Technology**: Epoxy - **Cured Appearance**: Dries clear - **Set Time**: 5 minutes at 20°C - **Initial Bond Time**: 30 minutes - **Full Cure**: 16 hours - **Working Time (Mixed)**: 2-3 minutes at 20°C - **Bond Strength**: Up to 75 kg/cm² when fully cured on steel - **Temperature Resistance**: Bond

softens above 60°C

These specifications are indicative and not intended for preparation of engineering specifications (TDS).

Packaging Options

Araldite 5 Minute is available in five pack sizes to suit different application volumes (TDS):

Syringe Format: - 24 mL dual-chamber syringe - 14 mL dual-chamber syringe

Tube Format: - 8 mL twin tubes - 35 mL twin tubes - 200 mL twin tubes

The syringe format incorporates a plunger mechanism that dispenses equal quantities of Part A and Part B simultaneously, ensuring accurate 1:1 ratio mixing. The tube format requires manual dispensing of equal volumes from separate containers (TDS).

Chemistry and Hazard Classification

Selleys Fix & Go Araldite 5 Minute is a two-part epoxy system, meaning it consists of chemically distinct Part A and Part B components that react upon mixing. The specific chemical composition is not disclosed in the supplied technical datasheets.

Part A (Resin) Hazards: Part A is classified with Signal Word "Warning" under GHS criteria and carries the following hazard classifications (Part A SDS): - Skin Corrosion/Irritation – Category 2 - Eye Damage/Irritation – Category 2A - Sensitisation – Skin – Category 1

This translates to hazard statements H315 (Causes skin irritation), H317 (May cause an allergic skin reaction), and H319 (Causes serious eye irritation) (Part A SDS).

Part B (Hardener) Hazards: Part B carries a higher-severity Signal Word "Danger" and the following classifications (Part B SDS): - Skin Corrosion/Irritation – Category 1C - Eye Damage/Irritation – Category 1 - Sensitisation – Skin – Category 1

This corresponds to hazard statement H317 (May cause an allergic skin reaction), with the Category 1C skin corrosion and Category 1 eye damage indicating more severe potential for tissue damage than Part A (Part B SDS).

Both components present skin sensitization hazards, meaning repeated exposure may trigger allergic dermatitis in susceptible individuals (Part A SDS, Part B SDS).

Mixing and Application Procedure

The manufacturer specifies the following application sequence (TDS):

1. Surface Preparation: Clean and dry all bonding surfaces thoroughly.

2. Dispensing (Syringe Format): - Snap the cap from the plunger - Carefully cut the sealed tips at the end of the syringe nozzle - Dispense equal parts of both liquids onto a clean, disposable mixing surface

3. Dispensing (Tube Format): Equal volumes of Part A and Part B must be manually measured and dispensed (specific ratio guidance not provided in supplied datasheets beyond the requirement for equal parts) (TDS).

4. Mixing: Mix both parts together thoroughly on the disposable surface. Complete mixing is critical to ensure uniform cure; incompletely mixed adhesive will exhibit weak zones or fail to cure entirely. The mixed adhesive remains workable for 2-3 minutes at 20°C (TDS).

5. Application: Apply the mixed adhesive to both surfaces of the joint, then bring the components together (TDS).

6. Fixturing: Hold the joint in position using tape or weights if necessary. Do not apply undue strain to the bond for 30 minutes while initial cure develops (TDS).

Cure Profile and Timing

Araldite 5 Minute progresses through distinct cure phases (TDS):

Open Time (Working Time): 2-3 minutes at 20°C after mixing. During this window, the adhesive can be applied and components can be repositioned. The mixed material begins to thicken as cross-linking initiates.

Set Time: 5 minutes at 20°C. At this point, the adhesive has gelled sufficiently that parts should no longer be moved, though the bond has not yet developed significant mechanical strength.

Initial Bond Time: 30 minutes. Sufficient cure has progressed to allow careful handling, though the bond remains vulnerable to stress and has not reached full strength.

Full Cure: 16 hours. Maximum bond strength of up to 75 kg/cm² (on steel) is reached at this stage.

These timings are temperature-dependent. Colder ambient temperatures extend all cure phases, requiring longer bonding times (TDS). The specific temperature coefficient is not quantified in the supplied datasheets.

Performance Characteristics

Bond Strength: When fully cured (16 hours), Araldite 5 Minute develops bond strength up to 75 kg/cm² on steel substrates (TDS). This specification represents tensile or shear strength under standardized test conditions, though the test method is not specified in the supplied documentation. Performance on other substrates is not quantified.

Rigidity: The cured adhesive forms a rigid bond, meaning it does not flex or accommodate dynamic movement once hardened (TDS). This makes it suitable for static structural joints but potentially unsuitable for applications requiring vibration damping or differential thermal expansion between bonded parts.

Durability: The adhesive is described as providing a "durable bond," indicating resistance to environmental degradation, though specific accelerated aging data, UV resistance, moisture resistance, or chemical resistance profiles are not provided in the supplied datasheets (TDS).

Clarity: The adhesive dries clear, making it visually unobtrusive on transparent materials like glass or on surfaces where adhesive squeeze-out would otherwise be visible (TDS).

Compatible Materials

Araldite 5 Minute bonds the following substrate classes (TDS):

- **China/Ceramics**: Suitable for bonding glazed and unglazed ceramic materials - **Metals**: Compatible with ferrous and non-ferrous metals (bond strength quantified specifically for steel) - **Glass**: Transparent cure allows inconspicuous glass-to-glass or glass-to-other-material bonds - **Leather**: Natural and synthetic leather substrates - **Rubber**: Natural and synthetic rubber compounds - **Wood**: Porous wood substrates - **Most Plastics**: Compatible with the majority of rigid plastic materials, with notable exclusions

The descriptor "most plastics" indicates limitations. Polyethylene (PE), polypropylene (PP), PTFE (Teflon), and silicone are typically incompatible with epoxy adhesives due to their low surface energy, though the technical datasheet does not explicitly enumerate excluded polymers (TDS). The phrase "rigid plastics" in the safety data sheets suggests the product is not optimized for flexible plastics (Part A SDS, Part B SDS).

Temperature Resistance

The cured adhesive softens above 60°C (TDS). This represents the glass transition temperature (Tg) region, where the cross-linked epoxy polymer transitions from a rigid glassy state to a more compliant rubbery state. Above this temperature, bond strength and dimensional stability decrease.

The datasheet notes that "strength is retained when temperature returns to normal," indicating the softening is reversible and does not represent permanent thermal degradation (TDS). Prolonged exposure to elevated temperatures or the maximum service temperature is not specified in the supplied documentation.

Lower temperature performance, including minimum application temperature or cold-weather cure behaviour beyond the general guidance to "allow for longer bonding times in colder weather," is not quantified (TDS).

Hazards and Safety Precautions

Both Part A and Part B present inhalation, skin contact, and eye contact hazards requiring protective measures.

Personal Protective Equipment (PPE): Precautionary statement P280 mandates wearing protective gloves, protective clothing, eye/face protection, and a suitable respirator when handling either component (Part A SDS, Part B SDS).

Ventilation: Precautionary statements P261 (Part A) and P260 (Part B) require avoiding breathing dust, fume, gas, mist, vapours, or spray during application (Part A SDS, Part B SDS).

Skin Protection: - P264: Wash hands, face, and all exposed skin thoroughly after handling (Part A SDS, Part B SDS) - P272: Contaminated work clothing should not be allowed out of the workplace (Part A SDS, Part B SDS)

Access Control: - P102: Keep out of reach of children (Part A SDS, Part B SDS) - P103: Read carefully and follow all instructions (Part A SDS, Part B SDS)

The skin sensitization hazard (H317) carried by both components means that individuals who develop allergic sensitization should avoid all future exposure, as subsequent contact may trigger progressively severe dermatitis (Part A SDS, Part B SDS).

Storage and Cleanup

Storage: Replace the cap from the plunger onto the syringe nozzle after use to prevent air ingress and premature curing of residual adhesive in the nozzle (TDS). Storage temperature and shelf life are not specified in the supplied datasheets.

Cleanup: Uncured adhesive can be removed with acetone (nail polish remover) (TDS). Once the adhesive has cured beyond the working time, mechanical removal (scraping, sanding) is typically required, though specific methods are not detailed in the supplied documentation.

Cured adhesive cleanup methods and solvent compatibility are not addressed in the technical datasheet or safety data sheets.

Application Tips

Temperature Compensation: Allow for longer bonding times in colder weather (TDS). The 5-minute set time and 30-minute initial bond time are specified at 20°C; lower ambient temperatures slow the cure reaction and extend all timing phases.

Fixturing Strategy: If the joint cannot be held manually, use tape or weights to maintain part alignment during the critical first 30 minutes (TDS). Clamps or other rigid fixtures may be used provided

they do not apply undue strain to the developing bond.

Working Time Management: With only 2-3 minutes of working time at 20°C, prepare all components, test-fit the assembly, and plan the application sequence before mixing the adhesive (TDS). Once mixed, work quickly and deliberately.

Dual Surface Application: The manufacturer instructs applying mixed adhesive "to both surfaces of job" before bringing them together, suggesting improved bond performance compared to single-surface application (TDS). The mechanism (improved wetting, increased adhesive mass, or mechanical interlocking) is not explained in the supplied documentation.

References

- araldite-5-minute-tds.pdf — Technical Data Sheet (canonical) - SELLEYS_FIX_GO_ARALDITE_5MIN_EPOXY___PART_A-AUS_GHS.pdf — Safety Data Sheet, Part A resin (secondary) - SELLEYS_FIX_GO_ARALDITE_5MIN_EPOXY___PART_B-AUS_GHS.pdf — Safety Data Sheet, Part B hardener (secondary)