

Product data

554

Multi-surface bonder – gel

Cyanoacrylate



General description

A specially formulated, non-running, non-drip gel for bonding components in vertical or overhead positions.

AJett 554 gives high strength results on porous surfaces or absorbent materials – wood, paper, card, leather, fabric, ceramics and cork as well as rubber, metals and some plastics.

AJETT 554 will bond most substrates in under 10 seconds. It has high shear strength properties and can fill gaps up to 0.5 mm when used with AJett 901 Activator.

Benefits

- Very fast curing, single component gel.
- Bonds porous surfaces – but also suitable for other materials (see right).
- Gel formulation does not drip or run – can be used on vertical and overhead positions.
- Cures at room temperature.
- Colourless.
- Less dependent on surface moisture than other cyanoacrylates.
- Economical to use – just a thin line needed for an effective bond.
- Good temperature range in service.

- Easy to apply.
- Handling strength in under 5 seconds, depending on substrate
- Good tensile shear strength, even on very porous surfaces – see over.
- Classified under US Military specification MIL-A-46050C, Type II, Class I

Typical uses – bonding

Porous/absorbent surfaces

- Wood.
- Leather.
- Paper and card.
- Ceramics.
- Fabric.
- Cork.

Non-porous/absorbent surfaces

- Rubber.
- Metals.
- Some plastics.

Application

- From the tube.
- Single component – no mixing.
- Invisible bonds.

Cost saving

- Labour savings – no fixtures, jigs, clamps normally needed.
- Use direct from the tube.

Cyanoacrylate adhesives cure as a result of a chemical reaction to substrate surface moisture. Although functional strength is developed rapidly, full cure takes 24 hours.

Technical data

Composition	Ethyl-2-cyanoacrylate
Physical appearance	Gel
Colour	Clear, colourless
Odour	Sharp, characteristic
Viscosity at 25°C	Gel, thixotropic
Flash point, closed cup	>81°C
Temperature range	-30 to +70°C
Fixture time	See below
Full cure	24 hours at 25°C
Tensile shear strength	See below, fully cured performance
Gap filling	0.25 mm*
Solubility	DMF, acetonitrile, acetone
Conforms to US Military specification	MIL-A-46050C, Type II, Class I

*Gap fill without activator. With activator: 0.5 mm. Results may vary according to substrate.

Fixture time, seconds

Nitrile to nitrile	<5.0
PVC to PVC	5 to 10
Neoprene to neoprene	<7.0
EPDM to EPDM	<7.0
Balsa wood to balsa wood	<10.0
Steel to steel	10 to 20
Polycarbonate to polycarbonate	10 to 40
Oak to oak	90 to 180

Packaging

20g tubes. Catalogue numbers **554/20**.

Shelf life

12 months if stored at temperatures between 5 and 25°C in closed original packaging and away from sunlight. To avoid contamination, do not return unused product to containers. Refrigeration at 5 to 8°C extends shelf life.

Precautions for use

Cyanoacrylate – DANGER! Bonds skin and eyes in seconds. Keep out of reach of children. In case of contact with eyes, consult a doctor. Please refer to the **AJETT** material safety data sheet *MSDS 554* for other information. Do not mix adhesive directly with a primer/activator.

NOTE: Data provided shows mean averages arrived after laboratory testing. Manufactured batches may vary slightly.

This publication is intended to serve as a guide only. Customers should satisfy themselves by appropriate trials that the product is suitable for its intended use.

The information is given in good faith and based on the state of our knowledge about the product –

Shear strengths, N/mm²

Grit blasted steel	>15.0
Polycarbonate	>12.0
Etched aluminium	>11.0
Nitrile rubber	>10.0

Tensile strengths, N/mm²

Grit blasted steel	>18.0
Nitrile rubber	>5.0
Neoprene rubber	>5.0
EPDM rubber	>2.5

Application method

AJETT 554 works best on clean parts – clean surfaces and use sparingly. **AJETT 554** can be applied direct from its tube. Fixture time depends on the surface (see above, left). Ensure adequate ventilation.

Solvent resistance

AJETT 554 shows excellent resistance to a variety of oils and chemicals, including motor oil, leaded petrol, ethanol, isopropanol and freons.

Replacement

AJETT 554 can be used instead of the following gel cyanoacrylate product:
Loctite 454

but cannot be used as a sales specification.

The attention of users should be brought to eventual hazards arising from the use of the product if they differ from what it was originally formulated for.

The customer will agree and accept our general sales and supply condition, in particular the cause of limitation and relief of responsibility.

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