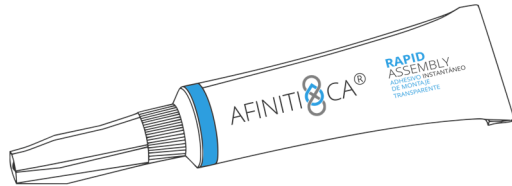


AFINITICA® RAPID ASSEMBLY



PRODUCT DESCRIPTION

Technology	Cyanoacrylate
Chemical Type	Ethyl cyanoacrylate
Appearance (uncured)	Clear gel
Components	One part – requires no mixing
Viscosity	Thixotropic gel
Cure	Humidity

AFINITICA® Rapid Assembly is an instant assembly adhesive with excellent bonding properties to a very broad range of materials and surfaces. This formulation has exceptionally long open times, higher strength and faster curing compared to traditional assembly adhesives. Open Times over 2 hours, instant adhesion even to plastics, wood and metals (including Aluminium) and irregular surfaces, make this product the perfect assembly adhesive for professional and DIY users. The gel consistency allows vertical and overhead applications.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Specific Gravity, 25 °C, g/cm ³ :	1.14
Viscosity, 25 °C, mPa·s (cP):	
Spindle 14, speed 1.5 rpm	67,000 – 109,000
Viscosity, 25 °C, mPa·s (cP):	
Spindle 14, speed 50 rpm	12,000 – 16,000

TYPICAL CURING PERFORMANCE

Curing is initiated upon the adhesive film creation when the two surfaces are pressed together. Handling strength is achieved rapidly; full strength is achieved over 24 hours.

FIXTURE TIMES

The fixture time will depend on the substrate. The Table below shows the fixture time for different substrates.

	Time (s)
Pine wood	15 – 60
Beech wood	30 – 90
ABS	60 – 120
Polycarbonate	75 – 90
Aluminium A5754	30 – 50
Mild steel	25 – 45

REPOSITIONABILITY TIME

The repositionability time will depend on the substrate used. The table below shows the repositionability time between a dry wall and the substrate indicated.

	Repositionability Time
Pine wood	3 min
Beech wood	2 min
Oak wood	2 min 30 s
Polycarbonate	4 min
Wall tile	10 s

TYPICAL PERFORMANCE OF CURED MATERIAL

TENSILE SHEAR STRENGTH

The shear strength will depend on the substrate. The table below shows the shear strength for different substrates using lap shears according to standard ISO 4587.

Cured for 24h at 22°C

	Strength (N/mm ²)
Pine wood	5 – 8
Beech wood	7 – 11
ABS	7 – 9*
Polycarbonate	3 – 4
Aluminium A5754	6 – 11
Mild steel	8 – 14

*Substrate Failure

GENERAL INFORMATION

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials.

For safe handling information on this product, consult the Safety Data Sheet (SDS).

DIRECTIONS FOR USE:

- 1) Before applying the glue, make sure the gluing surface is clean, dry and free of grease and wallpaper.
- 2) Puncture the nozzle by screwing the cap clockwise continuously into the base until the clicking sound stops. Unscrew the cap counter clockwise to open the bottle.
- 3) Apply the material on one of the two surfaces. For an irregular surface more material may be required to fill all irregular gaps
- 4) After bringing the second surface into contact, a couple of minutes are available to reposition it (check Table for accurate values). Then press the two parts together for around 30 seconds (check Table for accurate values). After releasing the pressure, wait 10 minutes for build of first good handling strength. Full strength builds after 24h.
- 5) Immediately after use, clean tip with a tissue and close the cap.
- 6) Optimal storage: 2 °C to 8 °C. Storage below 2 °C or greater than 8 °C can adversely affect product properties.
- 7) Product shelf-life: 12 months.

Conversions:

$$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$$

$$\text{kV/mm} \times 25.4 = \text{V/mil}$$

$$\text{mm} / 25.4 = \text{in}$$

$$\mu\text{m} / 25.4 = \text{mil}$$

$$\text{N} \times 0.225 = \text{lb}$$

$$\text{N/mm} \times 5.71 = \text{lb/in}$$

$$\text{N/mm}^2 \times 145 = \text{psi}$$

$$\text{MPa} \times 145 = \text{psi}$$

$$\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$$

$$\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$$

$$\text{mPa}\cdot\text{s} = \text{cP}$$

NOTE

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