

Cyanoacrylates multipurpose instant adhesive

Description

Lapox Ultraquick is one component, solvent free, nearly instant setting and room temperature curing adhesive system. It is a tenacious adhesive, particularly when used to bond non-porous materials or those that contain minute traces of water. It is compatible with wide range of materials like plastics, wood, metals, glass, rubber etc. It is easy to handle and dispense from convenient squeeze-tube packaging. It is optimal for bonding small parts or assemblies and is adaptable to high speed assembly operations using automatic dispensing.

Applications

This adhesive is useful in bonding plastic
Rubber, glass, wood, metals etc.,
Components where instant bonding is required

Advantages

Bond forms with only contact pressure and no clamping required.
Bonding to a wide variety of substrates including metals, rubbers, most plastics and ceramics. It is cost effective, as minimal amount of adhesives are needed to form strong bonds.
Excellent wetting characteristics with no solvent evaporation or hazardous vapour emission.
Good resistance to weathering. Ideal for high speed production, no mixing required and spread easily.
No special pretreatments required for most of surfaces, rapid curing (less than a minute) at room temperature and no heat required. Resists many chemicals including gasoline, kerosene and various oils.

Typical specifications

Properties	Unit	Particulars
Chemical type	-	Ethyl cyanoacrylates
Appearance	Visual	Clear transparent liquid
Colour	Visual	Colourless
Curing	-	Humidity
Specific gravity at 25°C	-	1.04 - 1.06
Viscosity	m Pas	Max 5
Flash point	°C	84
Solubility	-	Nitro methanol, Acetone, Dimethylformamide
Refractive index	-	1.49 (± 0.03)

After cure specifications

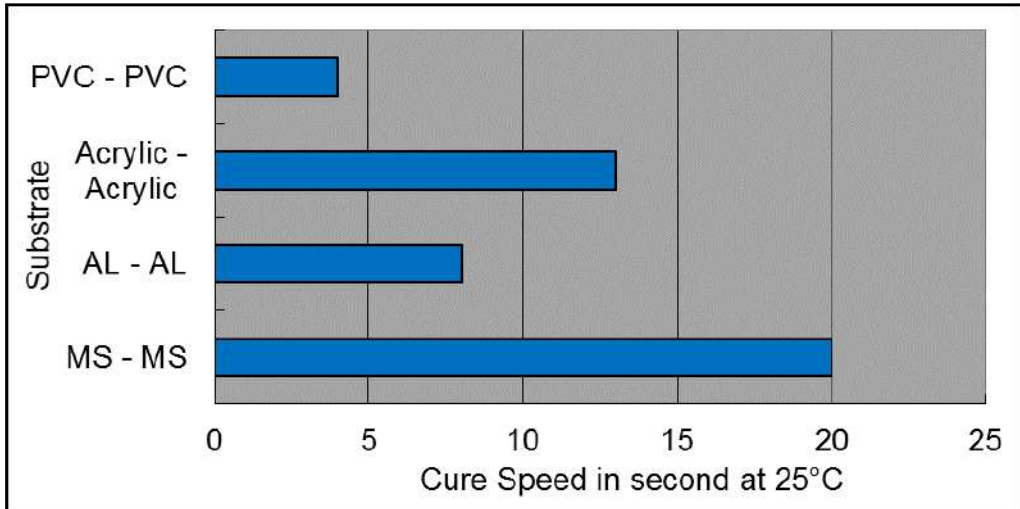
Test	Unit	Reference	Value
Gap fill	mm	-	0.05
Service temperature	°C	-	(-)55 to 82
Cure speed on MS - MS joint ¹	Seconds	-	20
Cure speed on Al - Al joint ¹	Seconds	-	8
Cure speed on acrylic - acrylic joint ¹	Seconds	-	13
Cure speed on PVC - PVC joint ¹	Seconds	-	4
Lap shear strength after 10 minutes ²	kg/cm ²	ASTM D1002	65
Lap shear strength after 1 hour ²	kg/cm ²	ASTM D1002	90
Lap shear strength after 24 hours ²	kg/cm ²	ASTM D1002	130
Lap shear strength ³	kg/cm ²	ASTM D1002	100

¹Cure speed measured at 25°C on 12.7 mm overlap area

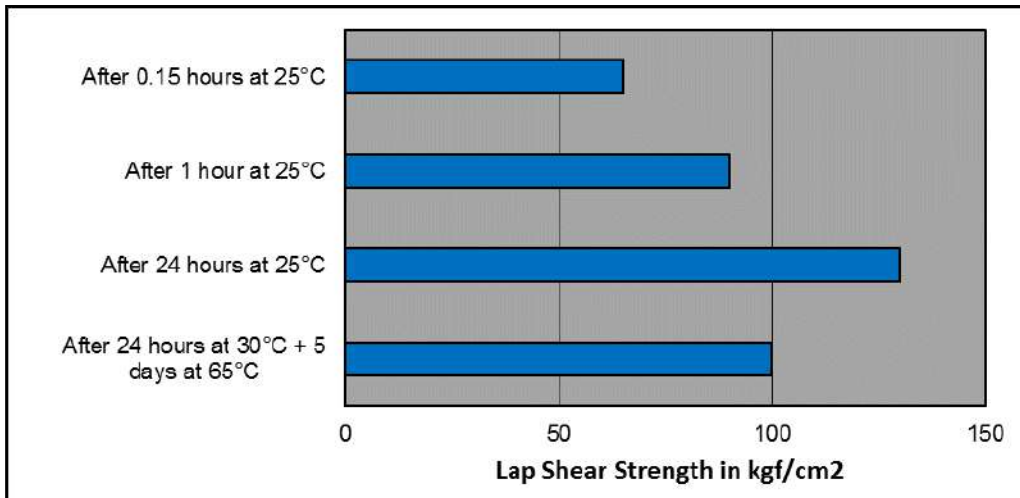
²Lap shear strength on prepared MS strips at 25°C, for different cure schedule time

³Lap shear strength on prepared MS strips. Cure schedule, 24 hours at 30°C and 5 days at 65°C

Cure speed study at 25°C on different substrates:



Lap shear strength study on MS - MS Substrate:



Processing	<p>Surface preparation: The adherents must be thoroughly degreased with a good degreasing solvent (e.g. toluene, acetone trichloroethylene). Abraded with coarse emery paper or chemically etched metal surface shows an excellent strength. Inadequately pre-treated substrates may not bond satisfactorily.</p> <p>Application: Apply the adhesive sparingly to one surface (usually one drop is sufficient), bring the components together quickly and correctly aligned. Apply sufficient pressure to ensure the adhesive spreads into a thin film. Do not disturb or re-align until curing is achieved. Any surplus adhesive can be removed with cleaner. For difficult or porous surfaces; activator is recommended. If bonding to polypropylene, polyethylene, PTFE or silicone surface, then prime surface first with polyolefin primer.</p>
Packaging	Lapox Ultraquick is available in 20 ml HDPE bottles. Other packing may be considered on request.
Storage and handling	Lapox Ultraquick should be stored in a cool and dry place, preferably in a sealed container and should not be exposed to direct sunlight. This product has a shelf life of nine months, if stored in its original container between 20°C and 22°C away from humidity and excessive heat.
Safety	Wear personal protective equipment (PPE). Avoid contact with the eyes and skin. In case of direct contact and irritation, it should be washed off immediately with soap and warm water. Avoid breathing vapours, mist or gas. Please refer to the Safety Data Sheet (SDS) of Lapox Ultraquick for detailed safety instructions.
Spills and disposal	In case of spills, sweep up and shovel the spilled material. Keep spilled material in suitable, closed containers for disposal. Soak up with an absorbent such as clay, sand or other suitable material. Flush area with water to remove trace residue. Do not allow the product to reach the sewage system. Waste must be disposed of in accordance with federal, state or local regulations, as applicable.
Contact	E-mail: support_polymers@atul.co.in Website: www.atul.co.in
Note	Lapox [®] is a registered trademark of Atul Ltd.