

Vortex AC304

Advanced Cyanoacrylate

Ref.: TDS125

AC304 is an advanced cyanoacrylate instant adhesive, which has no odour and no chlorosis (Bloom) properties.

AC304 can be used on a wide range of materials, from ABS to stainless steel, aluminium polycarbonate and PVC etc.

Physical Properties

Appearance	Colourless and transparent liquid
Principal Component	Ethoxyethyl 2-cyanoacrylate
Viscosity (25°C)	10cps
Specific Gravity (d_{4}^{20})	1.069
Surface Free Energy	37 dynes/cm
Refractive Index (n_{D}^{25})	1.447
Flash Point	112°C (Closed cup)
Boiling Point	About 200°C
Freezing Point	Under -20°C
Solubility Parameter	10 - 11
Heat Resistance	-80°C to 100°C
Volume Resistivity	10^{14} Ohm cm (30°C)
Dielectric Constant	3.5 (10MC, 10°C)

Setting Times

Material	Setting Time (seconds)
Rigid PVC	10
Methacryl Resin	15
ABS	3
Polycarbonate	20
FRP	60
Steel	5
Aluminium	5
Stainless Steel	10
Rigid PVC/Steel	5
Aluminium/ABS	3
Stainless Steel/FRP	60

Vortex AC304 Advanced Cyanoacrylate - Cont.

Bond Strengths

Material	Bond Strength (kgs/cm ²)	
	In Tension	In Tensile Shear
Rigid PVC	320	*
Methacryl Resin	260	*
ABS	180	*
Polycarbonate	230	40
FRP	270	140
Soft Steel	310	170
Aluminium	270	120
Hard Steel	200	120
Stainless Steel	260	170
Rigid PVC/Steel	150	*
Aluminium/ABS	140	*
Stainless steel/FRP	220	160

* : Material failure

Test condition: JIS K6861 for setting time, bond strength in tension and in tensile shear.

Surface treatment: Sandblasted and degreased with methychloroform.

Bonding atmosphere: 23°C x 60± 2%RH

Curing time: 24 hours.

How to Use

Ensure parts are clean, dry and free from oil and grease. Apply sparingly to one side and hold parts until handling strength is achieved.

Storage

Store in a cool area out of direct sunlight. Refrigeration to 5°C gives optimum storage stability.

Health and Safety

DANGER - Superglue bonds skin and eyes in seconds.

If accidental skin bonding happens wash with warm soapy water and prise skin apart using a blunt instrument (such as a teaspoon handle). The use of proper Barrier Cream is advised.

In case of eye contact, bathe immediately with water and seek immediate medical attention.

Whilst all reasonable care is taken in compiling technical data on the company's products, all recommendations or suggestions regarding the use of such products are made without guarantee since the conditions of use are beyond the control of the company. It is the customer's responsibility to satisfy himself that each product is fit for the purpose for which he intends to use it, and that the actual conditions of use are suitable