# TIGERHAWK

# Cyanoacrylate 113

Product Data Sheet

## Product Description

Tigerhawk 113 is a single component, low to medium viscosity cyanoacrylate adhesive. Suitable for general-purpose applications on metals, rubbers, and plastics.

### Physical Properties

## Monomer (Liquid)

| | |
|---|---|
| Base Compound | Ethyl Cyanoacrylate |
| Appearance | Colorless Liquid |
| Viscosity (cP @ 68°F) | 100 cP |
| Specific Gravity (g/cc) | 1.06 |
| Flash Point (TCC) | 185°F |
| Shelf Life @40°F | 1 year unopened |

## Military Specifications

Mil-A-46050C
Type II, Class 2

## Curing Properties

Ambient surface moisture will initiate the hardening process. Handling strength is reached in a short period of time and varies depending on environmental conditions and substrates being bonded. Product will continue to cure for at least 24 hours before full strength and resistances are developed.

## Setting Time (68°F, 65% R.H.)

| | |
|---|---|
| Steel | 10 to 20 seconds |
| Aluminum | 7 to 15 seconds |
| Neoprene | < 5 seconds |
| ABS | 5 to 10 seconds |
| Polycarbonate | 10 to 20 seconds |
| PVC | 10 to 20 seconds |

## Curing Performance

The gap of the bond line will affect set speed. Smaller gaps tend to increase the speed. Activators can be applied to improve set speed but may also impair overall adhesive performance.

## Polymer (Cured)

| | |
|---|---|
| Appearance | Colorless Solid |
| Service Temperature Range | -65°F to 200°F |
| Softening Point | 329°F |
| Refractive Index (ND 20) | 1.49 |
| Full Cure Time | 24 Hours |
| Dielectric Strength (KV/mm) | 11.6 |
| Dielectric Constant (@ 1Kc) | 5.4 |
| COE (in./in./F) | .000126 |
| Tensile Strength (steel/steel) | 3200 psi |
| Solubility | Nitromethane, Acetone, Dimethylformamide |

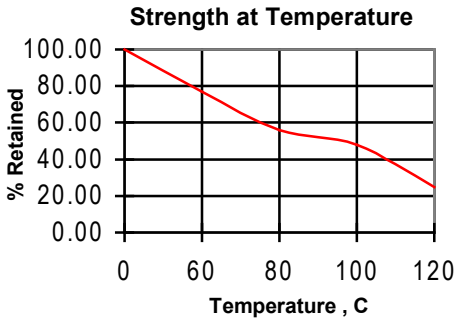
## Performance of Cured Materials

Tensile Shear strength after 48 hours at 20° to 25°C

| Substrate | Range in N/mm2 |
|---|---|
| Blasted Steel | 19 to 26 |
| Etched Aluminum | 14 to 21 |
| Neoprene | > 10 |
| ABS | > 6 |
| Polycarbonate | > 5 |
| PVC | > 6 |

## Temperature Resistance

Sheer Strength on steel after 1 week at 22 °C




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For assistance and recommendations on specifications for this product, contact AMV
www.amv.com.mx

**Chemical Resistance**

Sheer strength on steel after 12 month soak

| *Solvent* | % Strength Retained |
|---|---|
| Motor Oil | 100 |
| Gasoline | 100 |
| Tricloroethane | 100 |
| Freon TA | 100 |
| 10% NaOH | 0 |
| 10% Hcl | 0 |
| Water | 0 |

**General Instructions**

Surfaces to be bonded should be clean and dry.
Dispense a drop or drops to one surface only. Apply only enough to leave a thin film layer after compression.

Press parts together and hold firmly for a few seconds. Good contact is essential. An adequate bond develops in less that one minute and maximum strength is attained in 24 hours.
Wipe off excess adhesive from the top of the container and recap. Cyanoacrylate products if left uncapped may deteriorate by contamination from moisture in the air. Because Cyanoacrylate products cure by polymerization, whitening may appear on the surface of the container or the bonded materials. Should this happen, wipe surfaces well with acetone.

**For safe handling information on this product, consult the Material Safety Data Sheet, (MSDS)**

**General Information**

**Storage**

Refrigeration at 40°F provides optimum storage stability.

**Note**

Prior to use, remove all surface contaminants such as oil or grease. Products like isopropyl alcohol can be used. Test compatibility of cleaner with substrate.
Make sure surface is completely dry before bonding.

**Health & Safety in use**

CAUTION: SuperGlues bond skin and eyes on contact. If accidental skin bonding occurs, wash area with warm soapy water and slowly pry skin apart using a blunt object (such as a teaspoon handle.) In case of eye contact, bathe immediately with water and seek immediate medical attention.

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