ADINOX®
METAL BONDING SOLUTIONS

Hoja de Datos Técnicos
ADINOX® C50
23/01/2025

Description

C50 is a next-generation methoxyethyl cyanoacrylate adhesive engineered to deliver superior performance in demanding industrial applications. Unlike traditional cyanoacrylates, C50 offers low odor and no blooming, ensuring a cleaner, more efficient bonding process without compromising aesthetics.

C50's medium viscosity allows for precise application and excellent gap filling, making it ideal for high-precision assemblies. It provides fast, strong and reliable bonds to metals, elastomers and plastics.

Ideal for environments where VOC control is essential, ensuring compliance with strict air quality regulation

Curing properties

Moisture from the ambient surface will initiate the curing process. To develop its full strength and toughness the adhesive will continue to cure for at least 24 hours. The handling strength is achieved in a short period of time and may vary depending on the environmental conditions and the substrates to be bonded.

Setting Time

Pine wood	30 seconds
Beech wood	15 seconds
Oak wood	90 seconds
Aluminum	55 seconds
Steel	10 seconds
Acrylic	105 seconds
Polycarbonate	60 seconds
ABS	30 seconds
PVC	60 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.

Performance of cured materials

Curing for 24 h at 71 °F

	Resistencia (PSI)
Substrate	PSI
Pine wood	1595.0 – 1667*
Beech wood	2016 – 2088
Oak wood	1450 – 1551*
Aluminum	493 – 681
Steel	1537 – 1827
Acrylic	1261 – 1363*
Polycarbonate	1348 – 1363*
ABS	1740 – 1769*
PVC	1145 – 1290*

Physical properties of uncured material

Ethyl cyanoacrylate base compound.

Liquid appearance:	Incoloro
Viscosity (68°F):	1200 - 1500 cP
Specific Gravity (g / cc):	1.06
Flash Point (TCC):	185 °F
Shelf Life 39°F:	1 year unopened

Physical properties of cured material

Appearance:	Sólido, Incoloro
Softening point:	293 °F
Refractive index:	1.49
Tensile strength (steel/steel):	2,600 - 4,000 PSI
Service temperature range:	-76 °F to 176 °F
Full cure time:	24 hours
Dielectric constant (@ 1Kc):	5.4

Solubility:	Nitromethane, Acetone, Dimethylformamide

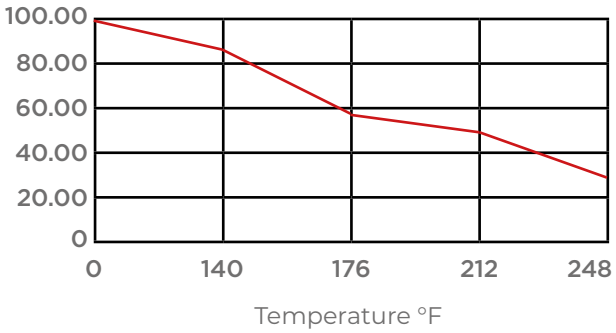
Chemical Resistance

Sheer strength on steel after 12 months soak.

Solvent	% Strength retained
Motor oil	100
Gasoline	100
Trichloroethane	100
Freon TA	100
10% of NaOH	0
10% of Hcl	0
Water	0

Temperature Resistance

Sheer strength on steel after 12 months soak



Storage

Products should be stored unopened in a cool, dry place out of direct sunlight. Refrigeration at 40°F provides optimum storage stability.

General Instructions

1) Surfaces to be bonded should be clean and dry.
2) Dispense a drop or drops to one surface only. Don't use any tools, such as a rag or brush, to spread the adhesive.
3) Press the parts together and hold them firmly for a few seconds. All parts must be positioned accurately, as there is only a short time to adjust and center the parts
4) Press parts together and hold firmly for a few seconds.
5) Allow the product to develop its full strength before subjecting it to operational loads (typically 24 to 72 hours after assembly, depending on joint clearance, materials and environmental conditions).
6) Product shelf life: 12 months.

Warning

This product is not recommended for use with pure oxygen and/or oxygen systems and chlorine or other strong oxidizers should not be chosen as a sealer.
For more information on the safe handling of this product, please refer to the safety data sheet.

Note: The data are provided for information purposes and according to the studies carried out. The data shown here havebeen obtained following the application instructions and under optimum product conditions. We cannot assume responsibility for results obtained by others whose methods we do not control. We recommend that the product be tested in the application for which it is to be used. For more information about this product or others, please contact our technical department at info@adinoxadhesives.com it is important to follow the instructions for use specified in this data sheet