

## Istant adhesives

Loxeal Istant Cyanoacrylate range is developed for structural and fast bonding of small parts. Cyanoacrylates ensure high performances for small gap bonding on a huge variety of substrates, such as rubber, metal, plastic, wood, leather, ceramic and more. They cure at room temperature, triggered by the moisture in the air or on substrates' surfaces.

#### **BENEFITS:**

- Curing in seconds at room temperature.
- Guarantee high resistance bonding.
- Solvent free (100% active principle).
- Single component, easy dispensing either manually or with dosing systems.
- ◀ Three different chemical bases for specific needs:
  - Methyl: fast, specific for metals.
  - Ethyl: fast and multi-purpose.
  - Ethyl modified: toughened to provide better resistance to impact and vibrations. Resistant to high temperatures (up to +200°C).
  - Alkoxy-Ethyl: multi-purpose, no blooming and odor free.



#### **Usage estimator**

Grams	Quantity of drops*
1	20-30
20	400-600
50	1000-1500
100	2000-3000

\*1 drop wets about 5cm² surface, when coupling 2 rigid surfaces.

### In combinazione con Loxeal Primer 7: ◀ Polyethylene, Polypropylene Nylon **⋖** EPDM Silicone rubber ✓ PTFE

#### Cyanoacrylate removers CR1 e CR2

Loxeal CR1 e CR2 (not flammable) are solvents designed to remove cured cyanoacrylate on surfaces and to disassembly parts that were bonded with a cyanoacrylate adhesive.

#### **DIRECTIONS FOR USE:**

- Apply CR1 on the cured cyanoacrylate adhesive.
- ◀ The removing time can vary from some minutes to hours depending on the thickness of the adhesive layer: bonded parts can require several hours of exposure to the remover.
- This solvent can affect and damage some plastics, coatings and fabrics so we recommend to test it on all the surfaces before use.



#### **DIRECTIONS FOR USE:**

- ◀ It is recommended to apply the adhesive on clean and dried surfaces. Clean the parts with Loxeal Cleaner 10 or other suitable solvent.
- ◀ To bond low surface energy plastics (LSE), such as Polyolefins, PTFE, silicone rubbers and other rubbers, apply Loxeal Primer 7 on the surface and wait for the solvent to evaporate.
- Apply a small quantity of adhesive on one of the two surfaces to bond and bring the components together
- Do not move the parts for the time indicated as fixture time.
- ◀ The joint cannot be subjected to stress until the functional strength is achieved.
- Both high and low relative humidity levels can affect the achievement of final strength
- Use Loxeal Activator 9 if you need to cure the adhesive outside the joint, it speeds up the reaction with air.
- ◄ Any surplus adhesive can be removed with Loxeal CR1 or CR2.



#### **APPLICATION TIPS**

- Suitable for bonding substrates with gaps from 0.01 to 0.1 mm, up to 0.3 mm with high viscosity grades.
- Temperature and relative humidity affect the cure (higher humidity and temperature speed up the curing time).
- We recommend operative conditions with relative humidity levels from 40% to 80%.
- Typical operative temperature range for cyanoacrylates is from -50°C to +80°C. Some adhesive, designed for high temperature can resist more, up to +200°C.
- Istant adhesives can't ensure a long-lasting bonding on glass.



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	GRADE	SPECIFIC GRAVITY	VISCOSITY (+25°C mPa.s)	GAP FILLING (microns)	CURE SPEED INDEX (5 fast, 1 slow)	TENSILE STRENGTH (ISO 6922) (N/mm²)	SHEAR STRENGTH (ISO 4587) (N/mm²)	DESCRIPTION
METHYL	14	1,10	80 - 150	10 - 100	2	25 - 30	20 - 25	Low viscosity, excellent on metals and rigid materials, also jointed with rubbers and plastics.
MET	17	1,19	1200 - 1800	10 - 200	1	25 - 30	18 - 25	High viscosity, to fill large gaps. Excellent on metals and rigid materials, also jointed with rubbers and plastics.
	23	1,06	40 - 80	10 - 60	3	12 - 25	13 - 18	Low viscosity, general purpose for rubbers, plastics, metals and ceramic.
	25	1,10	350 - 450	10 - 150	3	15 - 23	13 - 20	Medium viscosity, general purpose for rubbers, plastics, metals and ceramic.
	27	1,10	1200 - 1800	10 - 200	2	18 - 25	13 - 18	High viscosity, to fill large gaps and on porous surfaces. General purpose, for rubbers, plastics, metals and ceramic.
	32	1,10	5 - 10	10 - 40	5	12 - 25	13 - 18	Very low viscosity and very fast. Excellent on rubbers (NBR, EPDM, foams rubbers) and many plastics.
ETHYL	34	1,10	10 - 30	10 - 100	5	12 - 25	13 - 18	Low viscosity and very fast. Excellent on rubbers (NBR, EPDM, rubber foams) and many plastics.
	41	1,10	5 - 10	10 - 40	5	18 - 25	13 - 18	Low viscosity, extremely fast, surface insensitive. Suitable for bonding all materials, included paper, wood, leather.
	435	1,06	80 - 150	10 - 150	5	15 - 25	15 - 20	Low viscosity, extremely fast, surface insensitive. Suitable for bonding all materials, included paper, wood, leather. NSF approved, grade S4. Excellent high temperature resistance.
	45	1,06	600 - 1200	10 - 150	4	12 - 25	12 - 20	Medium viscosity, extremely fast, surface insensitive. Excellent to fill large gaps and on porous surfaces. Suitable for bonding all materials, included paper, wood, leather.
	47	1,08	GEL	10 - 300	2	18 - 25	13 - 18	Gel, for vertical application, to fill large gaps and on porous surfaces. Surface insensitive. Suitable for bonding all materials, included paper, wood, leather. Delayed fixture time allows parts repositioning. NSF approved, grade S4.
	48	1,05	2000 - 2500 THIXO	0,5 mm	2	18 - 25	13 - 18	Gel, specifically designed for automatic dosing. Surface insensitive. Suitable for bonding all materials, included paper, wood, leather. Delayed fixture time allows parts repositioning.
	60R	1,06	30 - 10	10 - 30	1	10 - 20	14 - 22	Extremely low viscosity, delayed to ensure maximum penetration. Suitable to be used as infiltrating in 3D printing models. Low blooming and low odor.
λXC	61	1,06	10 - 20	10 - 40	1	10 - 20	14 - 22	Very low viscosity, low blooming and low odor. Suitable for bonding all materials. Delayed fixture time allows parts repositioning.
ALCOXY	63	1,07	80 - 150	10 - 150	1	10 - 25	12 - 22	Low viscosity, low blooming and low odor. Suitable for bonding all materials. Delayed fixture time allows parts repositioning.
	67	1,1	1000 - 1500	10 - 200	1	10 - 25	12 - 22	Medium viscosity, to fill large gaps and on porous surfaces, low blooming and low odor. Suitable for bonding all materials. Delayed fixture time allows parts repositioning.
	29	1,06	500 - 1500	10 - 200	1	18 - 25	13 - 18	High viscosity, to fill large gaps and on porous surfaces. Black and toughened to ensure improved resistance to impact and vibrations. Suitable to bond rubbers, plastics and metals. Delayed fixture time allows parts repositioning.
	37	1,05	1000 - 2000	10 - 200	3	12 - 25	16 - 20	High viscosity, to fill large gaps. Flexible and toughened to ensure improved resistance to impact and vibrations. Suitable to bond rubbers, plastics and metals.
MODIFIED	73	1,06	100 - 200	10 - 150	2	12 - 25	15 - 25	Low viscosity, toughened to ensure improved resistance to impact and vibrations. Suitable to bond rubbers, plastics and metals.
MODI	74	1,06	100 - 200	10 - 150	2	12 - 25	15 - 25	Low viscosity, black, toughened to ensure improved resistance to impact and vibrations. Suitable to bond rubbers, plastics and metals.
_	75	1,10	4000 - 5000	10 - 250	2	12 - 25	15 - 25	Medium viscosity, to fill large gaps and on porous surfaces. Toughened to ensure improved resistance to impact and vibrations. Suitable to bond rubbers, plastics and metals.
	77	1,10	2000 - 4000	10 - 250	2	12 - 25	15 - 25	High viscosity, to fill large gaps and on porous surfaces. Black and toughened to ensure improved resistance to impact and vibrations. Suitable to bond rubbers, plastics and metals. Excellent high temperature resistance.
	54	1,06	5 - 15	10 - 60	2	18 - 25	13 - 18	Low viscosity, for high temperature applications, up to +120°C. Suitable for bonding rubbers, plastics and metals. Delayed fixture time allows parts repositioning.
HIGH TEMPERATURE	55	1,06	600 - 1000	10 - 200	2	18 - 25	18 - 25	Medium viscosity, to fill large gaps. High temperature resistant up to +130°C. Suitable for bonding rubbers, plastics and metals. Delayed fixture time allows parts repositioning.
TEM	56	1,10	100 - 150	10 - 150	2	18 - 25	16 - 20	Low viscosity, for high temperature applications, up to +200°C, or if the joint is exposed to painting cycles at high temperature. Suitable for bonding rubbers, plastics and metals. Delayed fixture time allows parts repositioning.

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