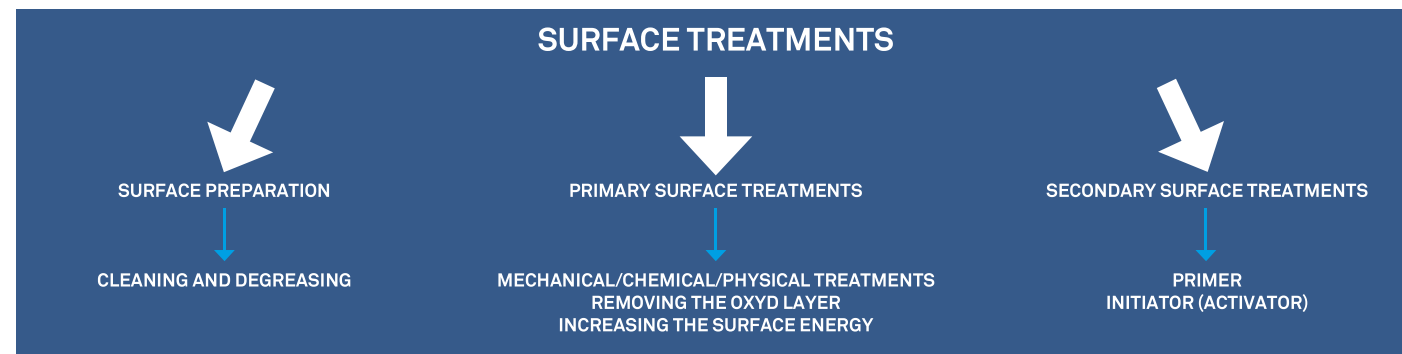


Solutions for surface preparation

Surface preparation is a fundamental part of the bonding process. By cleaning or specific treatments, you can remove the contaminants on the surface of the substrate, allowing the adhesive to correctly wet the actual surface, not the apparent surface. Adhesion and durability of the joint are maximized, thanks to the creation of chemical and physical bonds between the adhesive and the substrate.



BASIC SURFACE TREATMENTS

METALS

- Clean and degrease the surface with Cleaner 10 (or other solvent, such as acetone or MEK).
- Sand the metal surface with a medium grain sanding paper or sandblast it, to remove oxide, rust or paint that can be on the surface.
- Dose or spray Cleaner 10 on the surface.
- Rub the wet surface with a cloth to remove sanding residues.
- Wait for the solvent to evaporate.
- Immediately apply Loxeal adhesive or sealant and couple the parts to prevent the surface oxide to reform.

PLASTICS

- Clean and degrease the surface with Cleaner 10 or other solvent, such as isopropyl alcohol (Check the compatibility with the specific material before use).
- Sand the plastic surface with a thin grain sanding paper (to be avoided in case of Polyolefins).
- Dose or spray Cleaner 10 or isopropyl alcohol on the surface.
- Rub the wet surface with a cloth to remove sanding residues.
- Wait for the solvent to evaporate.
- Immediately apply Loxeal adhesive or sealant and couple the parts.

ELASTOMERS

- Dose or spray Cleaner 10 or isopropyl alcohol on the surface. (Check the compatibility with the specific material before use).
- Rub the wet surface with a cloth.
- Wait for the solvent to evaporate.
- Immediately apply Loxeal adhesive or sealant and couple the parts.

SECONDARY SURFACE TREATMENTS

Primer and initiators can be applied on parts for different purposes:

- Modify the surface energy of the substrate.
- Promote the chemical reaction between the adhesive and the substrate.
- Speed up or initiate the reaction of the adhesive.

INITIATORS

Loxeal initiators help anaerobic and cyanoacrylate products to speed the reaction up and achieve the full cure when environmental and operative conditions are critical. They can be used both on threaded and flat joints.



PRIMERS FOR POLYOLEFINS AND DIFFICULT-TO-BOND PLASTICS

Loxeal Primers act on the surface of low-surface-energy plastics and elastomers, such as PE, EVA, PP, EPDM and silicone rubbers, increasing their wettability and promoting Loxeal grades adhesion. They allow to avoid expensive surface pre-treatments helping to reduce production costs.

LOXEAL CLEANER 10

The first step of a correct surface conditioning is cleaning the parts to remove contaminants (oils, greases, oxide residues etc.) from the surfaces. Loxeal Cleaner 10 is a solvent, CFC-free, ideal for cleaning and degreasing metals and some plastics. It is not suitable for glass or in combination with Loxeal UV-curable adhesives.

DIRECTIONS FOR USE

- ◀ Dose or spray Cleaner 10 on the surface
- ◀ Rub the wet surface with a cloth to remove sanding residues
- ◀ Wait for the solvent to evaporate
- ◀ Immediately apply Loxeal adhesive or sealant and couple the parts

INITIATOR 9 AND INITIATOR 9F

They are solvent based initiators for cyanoacrylates, with the purpose of:

- Filling larger gaps
- Speeding up the cure time, when used at temperature lower than +15°C, or to cure the adhesive exposed to air

DIRECTIONS FOR USE

- ◀ Clean the surface with a suitable solvent and apply the initiator on one of the surfaces
- ◀ Wait for the solvent to evaporate
- ◀ Apply the adhesive on the other substrate and couple the parts

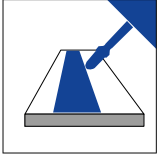
INITIATOR 11 (solvent based) AND INITIATOR 18 (solvent free)

They are initiators for anaerobic adhesives, with the purpose of:

- Filling larger gaps
- Speeding up the cure time, when used at temperature lower than +15°C
- Activating the surface of inactive or passive materials/coatings

DIRECTIONS FOR USE

- ◀ Clean the surface with a suitable solvent and apply the initiator on one of the surfaces
- ◀ Wait for the solvent to evaporate
- ◀ Apply the adhesive on the other substrate and couple the parts



Solutions for surface preparation

PRIMER 7

Primer for bonding polyolefins difficult-to-bond plastics and rubbers (PTFE, NYLON, silicone rubbers...) with Loxeal cyanoacrylates. It works on the surface of the substrate improving the adhesion between the parts. The fluorescence helps the application control.

DIRECTIONS FOR USE

- ▶ Clean the surface with a suitable solvent and apply the primer on the low-surface-energy substrate
- ▶ Apply the adhesive on the other substrate and couple the parts
- ▶ After the application of the primer, it is recommended to bond the parts by 1 hour
- ▶ The primer effect lasts up to about 8 hours on the surface

PRIMER 79

Primer for bonding polyolefins and rubbers (NBR, EPDM...) with Loxeal sealants (especially Silicones, MS polymers and Hybrid Epoxy). It works on the material surface improving the adhesion of the parts.

DIRECTIONS FOR USE

- ▶ Clean the surface with a suitable solvent and apply the primer on the low-surface-energy substrate
- ▶ Wait for the solvent to evaporate
- ▶ Apply the adhesive on the other substrate and couple the parts
- ▶ After the application of the primer, it is recommended to bond the parts by 1 hour
- ▶ The primer effect lasts up to about 24 hours on the surface

“NOT TO DO”

- ▶ Cleaning with thinner, denatured alcohol, phosphate-based detergents.
- ▶ Washing with water and soap.
- ▶ Polyolefin abrasion (make more possible to trap air inside the roughness).
(See page 28 for more information about bonding polyolefins and low-surface-energy without any pretreatment).
- ▶ Not to use Primer 7 or 79 on surfaces that do not require them.

