

Technical Datasheet

Cyanolit® 811 F



Product Description

With the superglue Cyanolit® series, Panacol-Elosol offers an optimal product range in the field of cyanoacrylates. Cyanolit® adhesives are solvent-free reaction adhesives formulated on the basis of esters of cyanoacrylic acid. They show very good adhesion to many materials and especially to plastics.

Cyanolit® 811 F is a low-viscosity cyanoacrylate adhesive with good capillary action and very good flow properties. Cyanolit® 811 F is a special cyanoacrylate adhesive that does not emit gas. This results in two decisive advantages in operational practice:

- 1.) No mucosal irritation - important for chord and homework. High cost savings thanks to fewer sick reports. No problems with the Trade Inspection Office.
- 2.) No coating formation - High cost savings due to less rejects. No optical impairment due to white coating in the vicinity of the adhesive joint. No malfunctions in electrical or electronic devices.

Curing Properties

Curing takes place without heat supply, pressure or additional activators. The classical one-component cyanoacrylates react with moisture, which is absorbed as a moisture film on the material surfaces, in a few seconds.

The curing speed depends on the gap width and the humidity level. A small gap width and a high humidity accelerate the setting process.

After a short time Cyanolit® reaches high strength. The material continues to harden 24 hours after gluing. Only after this time is the optimum media resistance achieved.

The following table describes the setting times on different substrates.

Substrate	Curing time [sec]	Tensile strength [MPa]
PVC hard	10	6,9*
ABS	20	4,8*
steel	20	16,5
Al	20	11,7
polycarbonate	20	3,9

*substrate failure

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Resin
Appearance

ethoxyethyl cyanoacrylate
transparent

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Uncured material

Viscosity [mPas] (Brookfield LVT, 25°C, Sp 2, 60rpm) <i>PE-Norm 001</i>	4 - 12
Density [g/cm ³] <i>PE-Norm 004</i>	1,07
Flash point [°C] <i>PE-Norm 050</i>	112
Refractive index [nD20] <i>PE-Norm 018</i>	1,48

Cured material

Temperature resistance [°C]	-80 - 80
Coefficient of thermal expansion [ppm/K] below Tg <i>PE-Norm 017</i>	126
Dielectric constant [10kHz]	3,5
Volume resistivity [Ohm*cm] <i>PE-Norm 040</i>	1,0E+15

Transport/Storage/Shelf Life

Trading unit	Transport	Storage	Shelf-life*
Other packages	at room temperature max. 25°C	0°C - 10°C	at delivery min. 6 months max. 12 months

***Store in original, unopened containers!**

Instructions for Use

Surface preparation

The surfaces to be bonded should be free of dust, oil, grease or other dirt in order to obtain an optimal and reproducible bond.

For cleaning we recommend the cleaner IP® Panacol. Substrates with low surface energy (e.g. polyethylene, polypropylene) must be pretreated in order to achieve sufficient adhesion.

Application

Our products are supplied ready to use. Depending on packaging they can be applied by hand directly from the container or semi or fully automatically. If help is required, please contact our application engineering department.

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Cyanoacrylate adhesives react very quickly with humidity (20% - 80%) or the moisture film on the materials. It is therefore advisable to wear gloves and goggles when handling larger quantities. Cyanolit® is applied punctiform - one or more drops, depending on the size of the surface, onto one of the joining parts. The second joining part is fixed with slight pressure, whereby the adhesive is distributed into a thin film. Acid surfaces prevent or retard the curing, while basic surfaces (pH > 7) accelerate curing.

The application can take place directly from the tip of the dosing bottle, but also with dosing devices. Since the achievable strength depends on the application quantity, an even dosage must be taken into account.

Adhesive and substrate may not be cold and must be warmed up to room temperature prior to processing.

After application, bonding of the parts should be done quickly.

For safety information refer to our safety data sheet.

Disclaimer

The product is free of heavy metals, PFOS and Phthalates and is conform to the EU-Directive 2017/2102/EU "RoHS III".

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