

TECHNICAL DATA

Special Difficult Plastics Adhesive

Product description

CEYS Special Difficult Plastics Adhesive is a medium-viscosity ethyl cyanoacrylate adhesive. This adhesive is capable of bonding a broad range of materials, including some porous materials that require very rapid-curing adhesives.

When used in combination with the primer supplied with the adhesive, it is suitable for bonding all types of plastics, including the most difficult.

CEYS Special Difficult Plastics Adhesive is specially formulated to provide superior bonds on common substrates. The curing speed of CEYS Special Plastic Difficult is less dependent on surface humidity than standard cyanoacrylates. It also has good filling capacity.

CEYS Special Difficult Plastics Adhesive primer accelerates the polymerisation of the cyanoacrylate. Its high handling time and short drying time (<15 s) mean that this product is quick and convenient to use.

Special characteristics

- Used in combination with the primer, it may be used to form joints under adverse weather conditions (cold, lack of humidity), joints with large clearances and joints in which the materials to be bonded are inactive or inert to cyanoacrylate.
- Resists moisture and the passage of time.
- Ideal for quick jobs.
- Temperature range: -50°C to +80°C.
- Suitable for rigid and semi-rigid plastics
- Suitable for joining hard-to-bond materials, such as polyethylene (PE), polypropylene (PP), Teflon® (PTFE), polyoxymethylene (POM), silicone and thermoplastic elastomers (TPE).
- It is suitable for polyvinyl chloride (PVC), acrylonitrile butadiene styrene (ABS), styrene acrylonitrile (SAN), polyethylene terephthalate (PET) and methacrylate (PMMA).
- It is effective for bonding polyester (PS).
- It may be used on acidic and porous substrates where other cyanoacrylates fail to adhere.
- It bonds wood, cork, leather, cardboard and similar surfaces.
- Used in combination with the primer, it may be used to form joints under adverse weather conditions (cold, lack of humidity), joints with large clearances and joints in which the materials to be bonded are inactive or inert to cyanoacrylate.

Typical properties of uncured material

- Density at 23°C (ISO 1183): 1.07 g/cm³
- Viscosity at 23°C (internal method): 500-700 mPa·s

Typical curing characteristics

In normal conditions, atmospheric moisture starts the curing process on the adhesive layer formed when the two surfaces to be joined are pressed together. Although strength develops quickly, full strength is achieved after 24 hours.

- Clamping times

Clamping time is defined as the time required to develop a shear strength of 0.1 N/mm² (1 kg/cm²). The following table shows the clamping time for different materials at 23°C and 50% relative humidity.

Substrate	Adhesion time: Difficult Plastics using Primer
Beech wood	5 seconds
PVC (Kömadur ES)	5 seconds
PVC (Simona CAW)	5 seconds
Polycarbonate (Makroform 099)	5 seconds
Polymethyl methacrylate (PMMA) Plexiglas XT 20070FF	5 seconds
Polystyrene (PS) Metzeler	5 seconds
ABS Metzoplast	5 seconds
Polyethylene (PE)	5 seconds

Instructions for use

Surface preparation:

Before applying the adhesive, ensure that the areas to be bonded are clean, dry and free of all loose material, dust, dirt, rust, oil, grease or other contaminants.

Application:

- Apply the liquid primer from its dispenser pen to both surfaces to be bonded, completely covering them.
- Leave the product to evaporate for between 5 and 15 seconds. If the adhesive is applied to the surface before the primer has evaporated, the bond may be compromised and suffer considerably reduced strength due to accelerated curing of the adhesive.
- Hold the tube of adhesive vertically and then unscrew the transparent plastic nozzle and remove the black washer. Screw the nozzle back on and open the tube.

TECHNICAL DATA

Special Difficult Plastics Adhesive

- Apply a small quantity of adhesive to one of the two surfaces. An uneven surface may require more adhesive to fill all the gaps.
- Place the two parts in contact and press together (see table for precise clamping times) until the parts are secured. After releasing the pressure, wait a few minutes for good handling resistance. Ultimate strength is achieved in approximately 12 – 24 hours.
- Immediately after use, wipe the tip of the nozzle clean with tissue and close the cap. Store in an upright position in a cool, dry place.

Dissolving and cleaning

Use solvents specifically made for instant adhesives, such as CEYS Instant Adhesive Cleaner 5 g (Ref. 504115) or acetone.

Format

CEYS Special Difficult Plastics Adhesive is supplied in a 3 g tube together with a 4 ml primer dispenser pen (Ref. 504112).

Storage

Store the product in a cool dry place in its original closed container at temperatures of between 5°C and 25°C.

In its original packaging, this product has a storage life of 18 months.

Storage beyond the recommended date does not necessarily mean that the product is no longer usable. In this event, however, the properties required for the intended use must be checked for reasons of quality control.

The date of manufacture can be determined from the batch code on the packaging. For assistance, please contact the Technical Department or Customer Service.

Safety precautions

Keep out of the reach of children. Do not ingest.

Causes skin irritation and severe eye irritation. May cause respiratory irritation.

More detailed instructions are given in the relevant product safety data sheet.

The user shall take ultimate responsibility for determining the final suitability of the product in all types of application.

The information given in this Technical Data Sheet should never be considered as a specification of the product's properties.

We guarantee the uniformity of the properties of our products in all supplies. The recommendations and information published in this technical data sheet are based on our current knowledge and rigorous laboratory tests. Due to the many variations in each project's materials and conditions, we ask our customers to conduct their own tests of utility under the expected working conditions and following our general instructions. This will avoid any subsequent damage, for the consequences of which the company is not responsible.