

Technical Data Sheet **Apollo BOOST 6010**

"The Power of Adhesive Information" in

Product Description

BOOST 6010 cyanoacrylate adhesive primer strengthens the adhesion of Apollo adhesives to non-polar plastics such as polypropylene and polyethylene. BOOST 6010 also increases the bonding ability of other difficult substrates such as silicone rubber and polytetrafluoroethylene. BOOST 6010 can be applied to surfaces by wiping, brushing, or spraying and contains no chlorinated or fluorinated solvents.

Health Precautions

Skin Contact: Wash exposed areas with copious amounts of soap and water for 15-20 minutes. Prior to use: See Material Safety Data Sheet

Storage

BOOST 6010 is highly flammable and should be stored away from heat, open flame, or ignition sources. Products should be stored unopened in a cool, dry place out of direct sunlight.

Physical Properties

Liquid

Base Compound Ethyl Acetate Colorless Liquid Appearance

Viscosity 1 cP

(cP @ 68°F)

Density (g/cc) 0.786 Flash Point (TCC) 40 °F

Shelf Life @40°F 12 months unopened

100% @70°F

Percentage Volatiles

(By weight)

Boiling Point 210°F Odor **Pungent**

For safe handling information on this product, consult the Material Safety Data Sheet, (MSDS)

NOTE

The data contained herein are furnished for information only and are believed to be reliable. Cyberbond L.L.C. cannot assume responsibility for the results obtained by others over whose method Cyberbond L.L.C. does not control. It is the user's responsibility to determine suitability for the product or of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof. In light of the foregoing, Cyberbond L.L.C. specifically disclaims all warranties of merchantability or fitness for a particular purpose arising from sale or use of Cyberbond L.L.C. products. Cyberbond L.L.C. specifically disclaims any liability for consequential or incidental damages of any kind, including loss of profits. The discussion herein of various processes or compositions is not to be interpreted as representation that they are free from domination of patents owned by others or as a license under any Cyberbond L.L.C. patents which may cover such processes or compositions. We recommend that each prospective user test the proposed application to determine its suitability for the purpose intended prior to incorporating any product or application in its manufacturing process using the data as a guide.

General Instructions

See Page 2

NOTE: May adversely affect some plastics and

other materials. Test First.

NOT FOR PRODUCT SPECIFICATIONS. THE DATA CONTAINED HEREIN ARE INTENDED AS REFERENCE ONLY.

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BASIC USES

APOLLO BOOST 6010 can be applied on plastic substrates by brushing, dipping, or spraying. After evaporation, the substrates can be bonded by **APOLLO** adhesives.

After application of the adhesives, the bonding will occur by a short contact pressure. Polymerization will start within a short period of time; initial strength will be obtained after a few seconds. Final strength is achieved in most applications of non-polar plastics such as polyethylene and polypropylene when using **APOLLO** adhesives after a cure time of 24 hours.

After application of the *APOLLO BOOST 6010* primer, the primed substrates do not have to be bonded immediately. With most applications, a storage time of several hours between primer application and adhesive application does negatively affect the final bonding strength.

SAFETY

Due to the solvents involved, APOLLO BOOST 6010 is highly flammable.

TECHNICAL INFORMATION

APOLLO BOOST 6010 -Primer for Bonding Non-polar Plastics with Cyanoacrylate Adhesives. Non-polar plastics such as polyethylene or polypropylene are difficult to bond without pre-treatment due to the surface tension of polyolefins. These plastics are often used due to their excellent properties whereas the bondability to adhesives is insufficient or even impossible.

Aside from flaming and etching of the materials, an oxidation of the substrates could also occur by the "Corona" or "Low Pressure Plasma" procedure. Other than the high costs, there is another disadvantage of bonding with cyanoacrylates. With some procedures, acidic fission products (dependent on the material) may arise on the surface. These residues may cause a non-polymerization or a curing delay of the cyanoacrylate adhesives. Furthermore, the activity of pre-treated surfaces decreases within a short period of time so the difficulties within continuous production processes may reduce quality and strength. Complicated jointing geometries such as plug connection with hollows can only be activated with **APOLLO BOOST 6010**.

Due to difficult bonding technique of the pre-treatment of substrates, there is an alternative to the rational bonding of non-polar materials with cyanoacrylate adhesives. *APOLLO BOOST 6010* makes it possible to achieve high strengths in order to bond non-polar materials with cyanoacrylate adhesives. *APOLLO BOOST 6010* can be applied by brushing, dipping, or spraying the substrates that are difficult to bond. After evaporation a very fast curing will follow causing a high strength and aging resistant bond. The pre-treated substrates do not have to be bonded immediately; storage of the activated materials for some hours will not influence the polymerization.

After the application of **APOLLO BOOST 6010 a** short evaporation time of 20-30 seconds, the cyanoacrylate adhesive can be applied in the usual manner such as: in drops, in a bead, manually, or automatically. After this process, a short contact pressure achieves the bond. In most applications, a few seconds are enough to achieve initial strength. After polymerization, which can take (depending on the substrates) minutes to hours, polyethylene and polypropylene often show tensile strengths of more than 6/mm². Depending on the composition and thickness of the plastic, the bonding strength sometimes surpasses the proper strength of the materials to be bonded.

Our tests with *APOLLO BOOST 6010 have* shown that the bonding strength on other substrates difficult to bond such as polytetrafluoroethylene, silicone rubber and thermoplastic elastomers can be drastically increased. An advantage of *APOLLO BOOST 6010 is* that pre-treated substrates can be bonded after a short evaporation time. Extensive tests have shown that the joint parts can be intermediately stored after evaporation of the solvent without a negative impact on the bonding strength.

