LOCTITE® 713™

December 2008

PRODUCT DESCRIPTION

LOCTITE® 713™ provides the following product characteristics:

Technology	Cyanoacrylate Activator
Chemical Type	Amine (active ingredient)
Solvent	Isopropanol
Active Ingredient Concentration, %	1.7 to 2.3
Appearance	Transparent colorless to slightly amber liquid[LMS]
Viscosity	Very low
Cure	Not applicable
Application	CA adhesive cure accelerator

LOCTITE® 713™ is used where increased cure speed of LOCTITE® cyanoacrylate adhesives is required. It can be either pre- or post-applied to the bond. The product is especially suited for post-application on cyanoacrylate adhesive to ensure rapid fixturing. LOCTITE® 713™ is suitable for use in the assembly of disposable medical devices. Other typical applications include securing wires or coils to PCBs, tamper-proofing adjustable components, mounting stand-offs, edge guides and board stiffeners.

ISO-10993

An ISO 10993 Test Protocol is an integral part of the Quality Program for LOCTITE® 713™. LOCTITE® 713™ has been qualified, in conjunction with LOCTITE® 4014, to Loctite's ISO 10993 Protocol as a means to assist in the selection of products for use in the medical device industry. Certificates of Compliance are available at www.loctite.com or through the Henkel Loctite Quality Department.

TYPICAL PROPERTIES

Specific Gravity @ 25 °C	0.8
Viscosity @ 20 °C, mPa·s (cP)	1
Drying Time @ 20 °C, seconds	≤30
On Part Life, minutes	≤1
Infrared Spectroscopy	To match standard[LMS]
Flash Point - See MSDS	

TYPICAL PERFORMANCE

Fixture time and cure speed achieved as a result of using LOCTITE® 713™ depend on the adhesive used and the substrate bonded.

Solidification Time, seconds:	
Steel with Loctite® 495	≤30

Handling precautions

Activator must be handled in a manner applicable to highly flammable materials and in compliance with relevant local regulations.

The solvent can affect certain plastics or coatings. It is recommended to check all surfaces for compatibility before use.

GENERAL INFORMATION

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected with a sealant for chlorine or other strong oxidizing materials.

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

Under no circumstances should activator and adhesive be mixed directly as liquids. Use only in a well ventilated area.

Directions for use

Post Activation

1. Apply Loctite cyanoacrylate to the parts to be bonded or fixed.
2. Apply Activator over all exposed cyanoacrylate adhesive by spray or drop. (Typically use one drop of activator per drop of exposed adhesive).

Surface Activation

1. Apply one coating of Activator to the area to be bonded by spray, brush or dipping. Contaminated surfaces may need special cleaning or degreasing prior to activation to remove any soluble contamination.
2. Allow LOCTITE® 713™ to fully evaporate from parts prior to bonding to avoid solvent entrapment within the bond joint.
3. Apply the Loctite cyanoacrylate product immediately after drying or not more than 45 seconds thereafter.
4. Activator can be re-applied if necessary if there is a delay of more than 45 seconds between original activator and adhesive application.

Loctite Material Specification[LMS]

LMS dated November 07, 2004. Test reports for each batch are available for the indicated properties. LMS test reports include selected QC test parameters considered appropriate to specifications for customer use. Additionally, comprehensive controls are in place to assure product quality and consistency. Special customer specification requirements may be coordinated through Henkel Quality.

Storage
This activator is classified as **HIGHLY FLAMMABLE** and must be stored in an appropriate manner in compliance with relevant regulations. Do not store near oxidising agents or combustible materials. The product is light sensitve and accordingly, translucent containers should be kept in a dark place when not in use. Store product in the unopened container in a dry location. Storage information may also be indicated on the product container labelling.
Optimal Storage: 8 °C to 21 °C. Storage below 8 °C or greater than 28 °C can adversely affect product properties. Material removed from containers may be contaminated during use. Do not return product to the original container. Henkel cannot assume responsibility for product which has been contaminated or stored under conditions other than those previously indicated. If additional information is required, please contact your local Technical Service Center or Customer Service Representative.

Conversions
(°C x 1.8) + 32 = °F
kV/mm x 25.4 = V/mil
mm / 25.4 = inches
µm / 25.4 = mil
N x 0.225 = lb
N/mm x 5.71 = lb/in
N/mm² x 145 = psi
MPa x 145 = psi
N·m x 8.851 = lb·in
N·m x 0.738 = lb·ft
N·mm x 0.142 = oz·in
mPa·s = cP

Note
The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose 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, **Henkel Corporation specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Henkel Corporation's products. Henkel Corporation specifically disclaims any liability for consequential or incidental damages of any kind, including lost 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 Henkel Corporation patents that may cover such processes or compositions. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide. This product may be covered by one or more United States or foreign patents or patent applications.

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Reference 1.1