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Product Description Sheet

Product 444

Electronics Products, July 1996

PRODUCT DESCRIPTION

LOCTITE® TAK PAK™ Product 444 is a single component, fast curing clear, medium viscosity cyanoacrylate instant adhesive formulated for electronic applications. Product 444 is designed for use with TAK PAK Accelerators to produce instant cures for tacking electronic components.

TYPICAL APPLICATIONS

Used to tack jumper wires, and wires to coil forms. Tamper proofing adjustable components. Mounting standoffs, edge guides, and stiffeners to circuit boards.

PROPERTIES OF UNCURED MATERIAL

	Value	Typical Range
Chemical Type	Ethyl cyanoacrylate	
Appearance	Clear liquid	
Specific Gravity @ 25°C	1.05	
Viscosity @ 25°C, mPa.s (cP)		
Brookfield LVF		
Spindle 2 @ 30 rpm	700	550 to 850
Flash Point (TCC), °C	84	

TYPICAL PROPERTIES OF CURED MATERIAL

Physical Properties

Coefficient of thermal expansion, ASTM D696, K ⁻¹	80 x 10 ⁻⁵
Coefficient of thermal conductivity, ASTM C177, W.m ⁻¹ K ⁻¹	.11
Glass transition temperature, ASTM E228, °C	130

Electrical Properties

Dielectric constant & loss, ASTM D150

	Constant	Loss
Measured at 1 kHz	3.00	0.028
Volume resistivity, ASTM D257, Ω.cm	7.2 x 10 ¹⁵	
Surface resistivity, Ω	6.6 x 10 ¹⁶	
Dielectric strength, ASTM D149, V/mil	930	

Directions for use

1. Apply one coating of TAK PAK accelerator to the area to be bonded by spray, brush or dipping. Prior to application, contaminated surfaces may need special cleaning or degreasing to remove any dissolvable contamination.

NOTE: Because the solvent base of TAK PAK accelerators can affect certain plastics or coatings, checking all surfaces for compatibility is recommended.

2. Allow the accelerator sufficient time to evaporate, under good ventilation, until the surfaces are completely dry (approximately 15 to 30 seconds).
3. Apply TAK PAK 444 cyanoacrylate product immediately after solvent has dried.

NOTE: If cyanoacrylate is not applied to the accelerator within 45 seconds, accelerator should be reapplied.

4. Where possible, for a few seconds move surfaces in relation to each other to properly distribute the adhesive and to achieve maximum activation. Secure the assembly, and wait for surfaces to fixture before any further handling.

GENERAL INFORMATION

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

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

Storage

Products shall be ideally stored in a cool, dry location in unopened containers at a temperature between 8° to 21°C (46° to 70°F) unless otherwise labeled. Optimal storage is at the lower half of this temperature range. To prevent contamination of unused product, do not return any material to its original container. For further specific shelf-life information, contact your local Technical Service Center.

Data Ranges

The data contained herein may be reported as a typical value and/or range. Values are based on actual test data and are verified on a periodic basis.

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, **Loctite Corporation specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Loctite Corporation's products. Loctite 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 Loctite 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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PLEASE CONTACT LOCTITE CORPORATION QUALITY DEPARTMENT FOR ASSISTANCE AND RECOMMENDATIONS ON SPECIFICATIONS FOR THIS PRODUCT.
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