

DuPont LF500

ENCAPSULANT PASTE

Technical Data Sheet

Product Description

DuPont LF500 is a low temperature encapsulant for nitrogen fired materials. Compatible with DuPont copper conductors and DuPont QP60 Resistors Series. When used as a resistor encapsulant, DuPont LF500 can be laser trimmed.

Processing Substrates

Properties are based on tests on 96% alumina substrates. Substrates of other compositions and from various manufacturers may result in variations in performance properties.

Printing

A 325 mesh stainless steel screen with a 10-15 μ m emulsion thickness is recommended. Printing speeds up to 25 cm/s can be used.

Drying

Allow prints to level for 5–10 minutes at room temperature. Dry 10 minutes at 120° C in air. Drying above 150°C in air will oxidize the copper and affect the surface properties of the fired film.

Firing

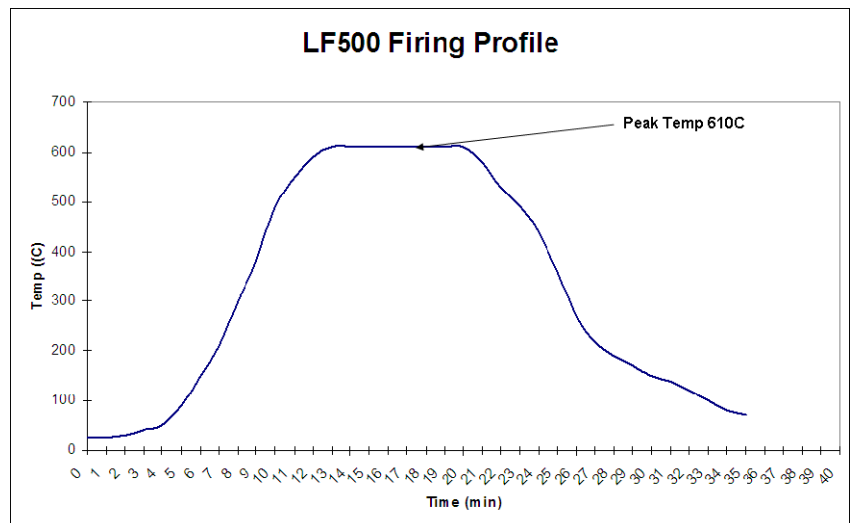
Dried parts should be fired in a belt furnace. A total cycle time of 30 minutes and a peak temperature of 610°C for 10 minutes is recommended. Nitrogen atmosphere must be used with a prevailing oxygen level of 5-10 ppm.

Typical Physical Properties

Test	Specifications
Solids (750°C) [%]	76.0 - 79.0
Viscosity (Pa.S)	50 - 80
Black Speck (μ m)	37
Thinner	5928

This table shows anticipated typical physical properties for DuPont LF500 based on specific controlled experiments in our labs and are not intended to represent the product specifications, details of which are available upon request.

Recommended Firing Profile



Storage and Shelf Life

Containers should be stored, tightly sealed, in a clean, stable environment at room temperature (<25°C). Shelf life of material in unopened containers is six months from date of shipment. Some settling of solids may occur and compositions should be thoroughly mixed prior to use.

Safety and Handling

For Safety and Handling information pertaining to this product, read the Material Safety Data Sheet (MSDS).

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For more information on DuPont LF500 or other DuPont Microcircuit Materials products, please contact your local representative:

Americas

DuPont Microcircuit Materials
14 T.W. Alexander Drive
Research Triangle Park, NC 27709
Tel.: 800-284-3382

Europe

Du Pont (U.K.) Limited
Coldharbour Lane
Bristol BS16 1QD
U.K.
Tel.: 44-117-931-3191

Asia

DuPont Kabushiki Kaisha
Sanno Park Tower, 11-1
Nagata-cho 2-chome
Chiyoda-ku, Tokyo 100-611
Japan
Tel.: 81-3-5521-8650

DuPont Taiwan Ltd
45, Hsing-Pont Road,
Taoyuan, Taiwan 330
Tel.: 886-3-377-3616

DuPont China Holding Co. Ltd
Bldg 11, 399 Keyuan Rd., Zhangji Hi-Tech Park,
Pudong New District, Shanghai 201203, China
Tel.: 86-21-6386-6366 ext.2202

DuPont Korea Inc.
3~5th Floor, Asia tower #726,
Yeoksam-dong, Gangnam-gu
Seoul 135-719, Korea
Tel.: 82-10-6385-5399

E. I. DuPont India Private Limited
7th Floor, Tower C, DLF Cyber Greens,
Sector-25A, DLF City, Phase-III,
Gurgaon 122 002 Haryana, India
Tel.: 91-124-4091818

Du Pont Company (Singapore) Pte Ltd
1 HarbourFront Place, #11-01
HarbourFront Tower One,
Singapore 098633
Tel.: 65-6586-3022

<http://mcm.dupont.com>