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 10-15µm 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 150ºC in air will oxidize the copper and affect the surface properties of the fired film.

Firing

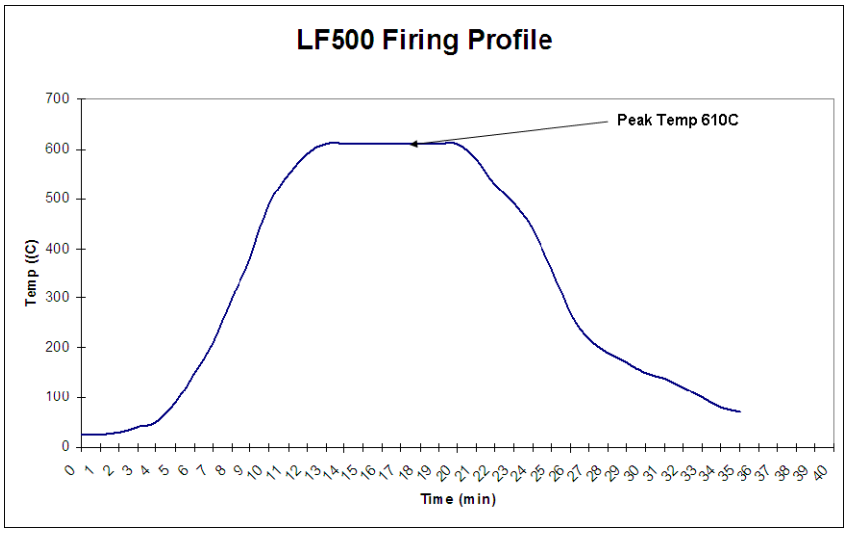
Dried parts should be fired in a belt furnace. A total cycle time of 30 minutes and a peak temperature of 610°C for 10 minutes is recommended. Nitrogen atmosphere must be used with a prevailing oxygen level of 5-10 ppm.

Typical Physical Properties

Test	Specifications
Solids (750ºC) [%]	76.0 - 79.0
Viscosity (Pa.S)	50 - 80
Black Speck (µm)	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).

Caution: Do not use in medical applications involving implantation in the human body or contact with internal body fluids or tissue unless the product is provided by DuPont under a formal written contract consistent with the DuPont Policy Regarding Medical Applications of DuPont Materials H-50103-2 ("Medical Applications Policy") and which expressly acknowledges the contemplated use. For additional information, please request a copy of DuPont Medical Caution Statement H-50102-2 and the DuPont Medical Applications Policy.

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