< DUPONT >

DuPont[™] 8080/8081

Conductor Paste

Product Description

808x Series is provided for use in production of electrically heated backlights by the 'direct' method. The pastes can be blended with each other to obtain a wide range of electrical resistance.

Product Benefits

- Lead free* and cadmium free*
- Acetic acid resistance
- Wide range of electrical resistance
- Robust printing performance
- High firing density
- Supplied ready to print

Processing

Blending

In order to obtain a specific resistance value, the pastes can be blended with each other. A computer program or semi logarithmic graphs can be used to determine blend recipes for specific heated window designs.

Printing

Mix thoroughly before printing. Use air dried and some UV enamel if necessary.

Drying

Dry at 150°C.

Firing

Dried print should be fired in a belt furnace with solvent and sulfur-free air atmosphere. Average glass surface temperature over glass should be 600~700°C, while over enamel 600~670°C.

Soldering

Burnish with steel wool or fired glass. Use type R rosin flux and copper clip or braid preferred pre-tinned.

Table 1 - Typical Physical Properties

| Test | Properties | |
|------------------------------------------------------|----------------------|------|
| Paste | 8080 | 8081 |
| Resistivity after firing (m Ω /sq/10 μ m) | 3.3 | 5.6 |
| Adhesion, N | >250 | >250 |
| Solder Recommended | | |
| 250-350°C/5sec | 60Pb/27Sn/3Ag/10Bi | |
| 320-400°C/5sec | 70Pb/27Sn/3Ag | |
| | Other Pb-free solder | |
| Air side Color | Yellow | |
| Tin side Color | Dark Brown | |

Table 2 - Typical Composition Properties

| Test | Properties | |
|----------------------------------------------------------------------|--------------|-----------|
| Paste | 8080 | 8081 |
| Viscosity (Pa.s)(HAT UC&S 10rpm) Viscosity (Pa.s)(RVT UC&S 20rpm) | 40-65 | 42-50 |
| Solids (750°C)(%) | 85.3-86.3 | 80.3-82.8 |
| Shelf Life (months) | 6 | |
| Thinner | DuPont™ 8250 | |

Tables 1 and 2 show anticipated typical physical properties for DuPont[™] 8080/8081 based on specific controlled experiments in our labs and are not intended to represent the product specifications, details of which are available upon request.

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).



electronics.dupont.com

For more information on DuPont[™] 8080/8081 or other DuPont products, please visit our website.

The information provided in this data sheet corresponds to our knowledge on the subject at the date of its publication. It may be subject to revision as new knowledge and experience becomes available. This information is not intended to substitute for any testing you may need to conduct to determine for yourself the suitability of our products for your praticular purposes. Since we cannot anticipate all variations in end-use and disposal conditions, DuPont makes no warranties and assumes no liability in connection with any use of this information. It is intended for use by persons having technical skill, at their own discretion and risk. Nothing in this publication is to be considered as a license to operate under or a recommendation to infringe any patent right.

CAUTION: Do not use in medical applications involving permanent implantation in the human body. For other medical applications, see "DuPont Medical Caution Statement," H-50102-5 and "DuPont Policy Regarding Medical Applications" H-50103-5.

DuPont[®], the DuPont Oval Logo, and all products, unless otherwise noted, denoted with [®], [®] or [®] are trademarks, service marks or registered trademarks of affiliates of DuPont de Nemours, Inc. Copyright © 2019 DuPont de Nemours Inc. All rights reserved. EI-10103 (09/19)