



DUPONT™ 6690/6691

THICK FILM COMPOSITION

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DuPont™ 6690/6691 is provided for use in the 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.

Typical Fired Properties

Test	Properties	
	6690	6691
Resistivity after firing (mΩ/sq/10μm)	3.5	4.7
Adhesion, N	> 250	> 250
Solder Recommended 250 – 350°C/5sec 320 – 400°C/5sec	60Pb/27Sn/3Ag/10Bi 70Pb/27Sn/3Ag Other Pb-free solder	
Air side Color	Yellow	
Tin side Color	Dark Brown	

Composition Properties

Test	Properties	
	6690	6691
Viscosity (dPa.s) RION #2	250 – 300	400 - 500
Solids (750°C) (%)	80.3 – 82.8	80.3 – 82.8
Thinner	7046/8250	

Above tables shows anticipated typical physical properties and composition properties for DuPont™ 6690/6691 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).



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FOR MORE INFORMATION ON DUPONT™ 6690/6691 OR OTHER DUPONT MICROCIRCUIT MATERIALS, PLEASE CONTACT YOUR LOCAL REPRESENTATIVE:

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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 K-29536 (6/17)