

DuPont™ Solamet® PV480

carbon conductive composition

Technical Data Sheet

Product Description

DuPont™ Solamet® PV480 carbon conductive composition is used as a conductive layer for Cd/Te or equivalent solar cells. It has excellent screen life and high temperature stability. It can be used easily in automatic or manual print applications.

Product Benefits

- High abrasion resistance
- High stability
- Lowest resistivity carbon

Processing Summary

- **Screen Printing Equipment**
Automatic or manual
- **Ink Residence Time on Screen**
Longer than two hours
- **Screen Types**
Polyester, stainless steel
- **Typical Cure Conditions**
Box Oven: 120–130°C for 5 minutes
IR oven: 130°C/2–3 minutes
- **Typical Circuit Line Thickness Printed with 200-mesh stainless steel screen**
9–15 µm
- **Clean up Solvent**
Ethylene diacetate of methyl propasol acetate

All values reported here are results of experiments in our laboratories intended to illustrate product performance potential with a given experimental design. They are not intended to represent the product's specifications, details of which are available upon demand.

Table 1
Typical Physical Properties

Test	Properties
Sheet Resistivity (mΩ/sq/mil) (at 25 µm thickness)	<30
Resistivity after Flex (mΩ/sq/mil) 15 sec after test Crease (180°C, 1 cycle)	50
Abrasion Resistance, Pencil Hardness (H) (ASTM D3363-74)	3H
Solder	Not Recommended
Viscosity (Pa.S) (Brookfield HBT, 10rpm #14 spindle & UC, 25°C)	15–70
Solids (150°C) (%)	32.5–36.5
Coverage (cm ² /g/mil)	103
Thinner	8260

¹Table 1 shows typical physical properties for PV480.

Storage and Shelf Life

Containers may 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

The following precautions should be exercised when handling PV480:

- Use with adequate ventilation
- Avoid prolong contact with skin
- If contact with skin occurs, was affected area immediately with soap and water
- Avoid prolonged breathing of vapor
- Dangerous if swallowed—DO NOT CONSUME
- Refer to MSDS for more details.

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