Product Description
Silver/Platinum Conductor composition QS170 is a general purpose microcircuit conductor offering excellent adhesion and wide processing latitude. It has been designed to provide high yields and to be cost effective in demanding commercial circuit.

Product Benefits
- High Conductivity
- Broad Process Latitude
- Good Solder Adhesion

Processing
Substrate Preparation
Properties are based on test using 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 15µm emulsion to obtain a minimum of 10µm fired thickness is recommended. Printing speeds up to 30 cm/s can be used.

Drying
Allow prints to level for 5-10 minutes at room temperature. Dry for 10 minutes at 150ºC in air.

Firing
Dried parts should be fired in a belt furnace. A total cycle time of 30 minutes and a peak temperature of 850ºC for 10 minutes is recommended.

Table 1 shows typical physical properties for QS170
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
The following precautions should be exercised when handling QS170:
• Use with adequate ventilation
• Avoid prolonged contact with skin
• If contact with skin occurs, wash affected area immediately with soap and water
• Avoid prolonged breathing of vapor
• Dangerous if swallowed - DO NOT CONSUME
• Refer to MSDS for more details

For more information on QS170 or other DuPont Microcircuit Materials products, please contact your local representative:

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Figure 1: Recommended Firing Profile