UVD5803 is a screen printable UV dielectric ink for low cure applications. This UV dielectric ink, when properly cured, has good adhesion to most untreated and treated flexible plastic films such as polyester. UVD5803 can be used for insulation of silver traces and a dielectric for cross-overs in membrane keyboard applications.

**Key Benefits**
- REACH\(^1\) and RoHS\(^2\) compliant
- Fast UV curing
- Good adhesion to untreated and treated flexible plastic films
- Compatible with Heraeus Ag conductor (LTC3602)

**Typical Properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dielectric constant:</strong></td>
<td>4 at 1 kHz</td>
</tr>
<tr>
<td><strong>Dielectric Breakdown Voltage:</strong></td>
<td>&gt; 1,500 Volts/mil (2 printed layers)</td>
</tr>
<tr>
<td><strong>Insulation Resistance:</strong></td>
<td>&gt; 50 x 10(^9) Ω at 25 microns cured (2 printed layers)</td>
</tr>
<tr>
<td><strong>Non-Volatile:</strong></td>
<td>(1 Hr @ 150 °C) 100 %</td>
</tr>
<tr>
<td><strong>Viscosity:</strong></td>
<td>10 – 20 Kcps; Brookfield RVT SC4-14 spindle and 6R utility cup @ 10 rpm, 25 °C</td>
</tr>
<tr>
<td><strong>Color:</strong></td>
<td>Translucent green</td>
</tr>
</tbody>
</table>

**Recommended Processing Guidelines**

**Printing:**
- 280 – 325 stainless steel mesh screen
- 0.5 mil emulsion

**Curing:**
- 550 mJ UVA source

**Thinner:**
- LC-3668

**Warranty:**
Material guaranteed to meet specifications for 6 months from date of shipment

**Storage:**
Store in a dry location at 5°C – 25 °C.
Avoid Direct Sunlight
**DO NOT REFRIGERATE.**
Allow paste to come to room temperature prior to opening. Spatulate well before using, as settling may occur during storage.

**SPECIAL NOTE:**
Some of these materials may show resistance shifts due to thermal storage. Stability baking has been shown to minimize this behavior.
The descriptions and engineering data shown here have been compiled by Heraeus using commonly accepted procedures, in conjunction with modern testing equipment, and have been compiled as according to the latest factual knowledge in our possession. The information was up to date on the date this document was printed (latest versions can always be supplied upon request). Although the data is considered accurate, we cannot guarantee accuracy, the results obtained from its use, or any patent infringement resulting from its use (unless this is contractually and explicitly agreed in writing, in advance). The data is supplied on the condition that the user shall conduct tests to determine materials suitability for particular applications.

Legend:

1) REACH compliant according to the latest ** Annex XIV to Regulation (EC) of the European Parliament and of the council on the Registration, Evaluation, Authorisation and Restriction of Chemicals ("REACH") by European Chemicals Agency and its subsequent amendments; the material does not contain any substance listed in Annex XIV.

2) RoHS compliant according to the latest ** Directives (European Union) of Restriction of Hazardous Substances ("RoHS") and its subsequent amendments (including the exceptions related to Pb)