SR 21-350 Series is a pure silver resistor paste, especially developed for use as heater paste on dielectric like SD 1010. It should be applied in a post-firing process on the dielectric.

**Key Benefits**
- Very cost effective using pure silver
- Free of lead, cadmium, nickel and phthalate
- REACH\(^3\) and ROHS\(^4\) compliant

**Processing**
1) Spatulate well prior to processing.
   When stored in a refrigerator allow paste to come to room temperature prior to opening, to avoid condensation.
2) Print through a 200 – 325 mesh stainless steel screen.
3) Level at room temperature for 5 – 10 minutes.
4) Dry at 150 °C for 10 minutes.
5) Fire at 850 °C (peak) for 10 minutes, and with a total firing cycle time of approx. 30 – 60 minutes.

**Typical Properties (Paste)**
- Form: Pseudoplastic paste
- Viscosity: 30 – 60 Pas (25 °C, D = 100/s)
- Solids: 76.0 % ± 1.5 %
- Printing Speed: Up to 20 cm/s
- Shelf Life: 6 months from date of shipment with correct storage (in a dry, cool (5 – 25 °C) and dark place with container tightly shut).

**Typical Properties (Fired)\(^1\)**
- Fired Film Thickness\(^2\): 11 – 16 μm

**List of Sheet Resistance (Rs) and HTCR (Fired) available**

<table>
<thead>
<tr>
<th>Series</th>
<th>Rs(^2) (mΩ/□)</th>
<th>HTCR (ppm/K)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR 21-350-018</td>
<td>15 – 20</td>
<td>3500 ± 200</td>
</tr>
<tr>
<td>SR 21-350-025</td>
<td>20 – 30</td>
<td>3500 ± 200</td>
</tr>
<tr>
<td>SR 21-350-100</td>
<td>80 – 120</td>
<td>3500 ± 200</td>
</tr>
</tbody>
</table>

**Compatibility**
- Dielectrics: SD 1010
- Conductor: SC 1001 (AgPt)
- Overglaze: SD 1019

**Thinner**
HVS 100
Silver Heater Paste for Dielectric on Steel / DPIS*  
Development Product Information Sheet

Legend:

1) Typical properties based on laboratory test methods. For optimum results all materials should be fired in a profiled furnace supplied with dried, hydrocarbon and other contaminant free air (PP-1).

2) Measured after printing with a 325 mesh steel screen; screen thickness and emulsion thickness combined was c. 75 µm, and the resultant printed track was 500 µm wide, post-fired on SD 1010.

3) 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.

4) 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)

5) Also applicable on alumina 96% - in this case user should collect data of resistance and HTCR in his facility.

6) AT FFT: 15 µm

7) 25 to 125 °C

* See the data sheet issue date (DD/MM/YY) as reference of validity of latest edition which is available on request.