



## Heraeus Inkjet Bright Gold GG030715

### Technical information sheet

#### 1 Description of GG030715

Heraeus Inkjet Bright Gold GG030715 is for printing via piezoelectric Ink Jet heads for glass substrates. High reflective metallic gold film is achieved after inkjet printing through the firing process. This product is adjusted depending on different glass surfaces progressively. In addition, based on this product, new ink formulations are developed regarding the customer requirements in decoration as well as functional applications.

#### 2 Typical physical properties

<b>Appearance:</b>	Red colored liquid with mild odor
<b>Viscosity:</b>	6 – 9 mPas (20°C, D=100rpm)
<b>Surface Tension:</b>	28 - 32 mN/m (25°C)
<b>pH value:</b>	6 - 7 (25°C)
<b>Conductivity:</b>	< 0.2 $\mu$ S (25°C)
<b>Density:</b>	0.96 g/cm <sup>3</sup> (45°C)
<b>Shelf life:</b>	6 month from date of delivery with correct storage in a dry, cool (5-25°C) and dark place in a tightly closed container

#### 3 Processing

Operating temperature for Heraeus Inkjet Bright Gold GG030715 is between 25 – 40°C. Prior to the production, extensive tests should be performed to ensure long-term stability of print behavior in the given print head type. Moreover, to ensure that the intended result can be achieved. Printing result depends also on substrate type and surface conditions. Adoption of surface tension of the substrate or ink might be necessary.

The compatibility of the inkjet inks with the used print head has to be checked prior to using the ink. Print heads from Xaar, Fuji, as well as Konica-Minolta are technically suitable. The exact waveform shape has to be adopted to the ink / print head combination.

The resolution should be as high as possible. A resolution above 700 dpi is the recommendation for a single pass printing. Layer thickness value of the printed motive is approx. 20  $\mu$ m. The gold ink will need to be fired at 550 to 650°C after printing and approx. 200nm gold layer is achieved. Thinner, other than recommended, should not be used.

The statements concerning our products correspond to our current knowledge and experience. It is the obligation of the purchaser to examine the usefulness of the products in its intended use in each individual case. In order to prevent production losses the user has to test the preparations in connection with every other material being involved in the production process and has to be satisfied that the intended result can be consistently produced.

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