

**PD** PROCESS  
 DATA SHEET

2-pack solder resist

**ELPEMER<sup>®</sup> GL 2467 SM-DG**



- application by curtain coating
- photoimageable
- aqueous-alkaline developable

Indices:    **GL = curtain coating**  
                   **SM = silk-mat**  
                   **DG = dark-green**

**ELPEMER<sup>®</sup>** = registered trademark of Lackwerke Peters GmbH + Co KG

→ Please read this process data sheet, the corresponding material safety data sheet, the application information sheet AI 2/1 and the general Technical Report on our 2-pack solder resists of the series **ELPEMER<sup>®</sup> 2467** carefully before using the product.

**Characteristics**

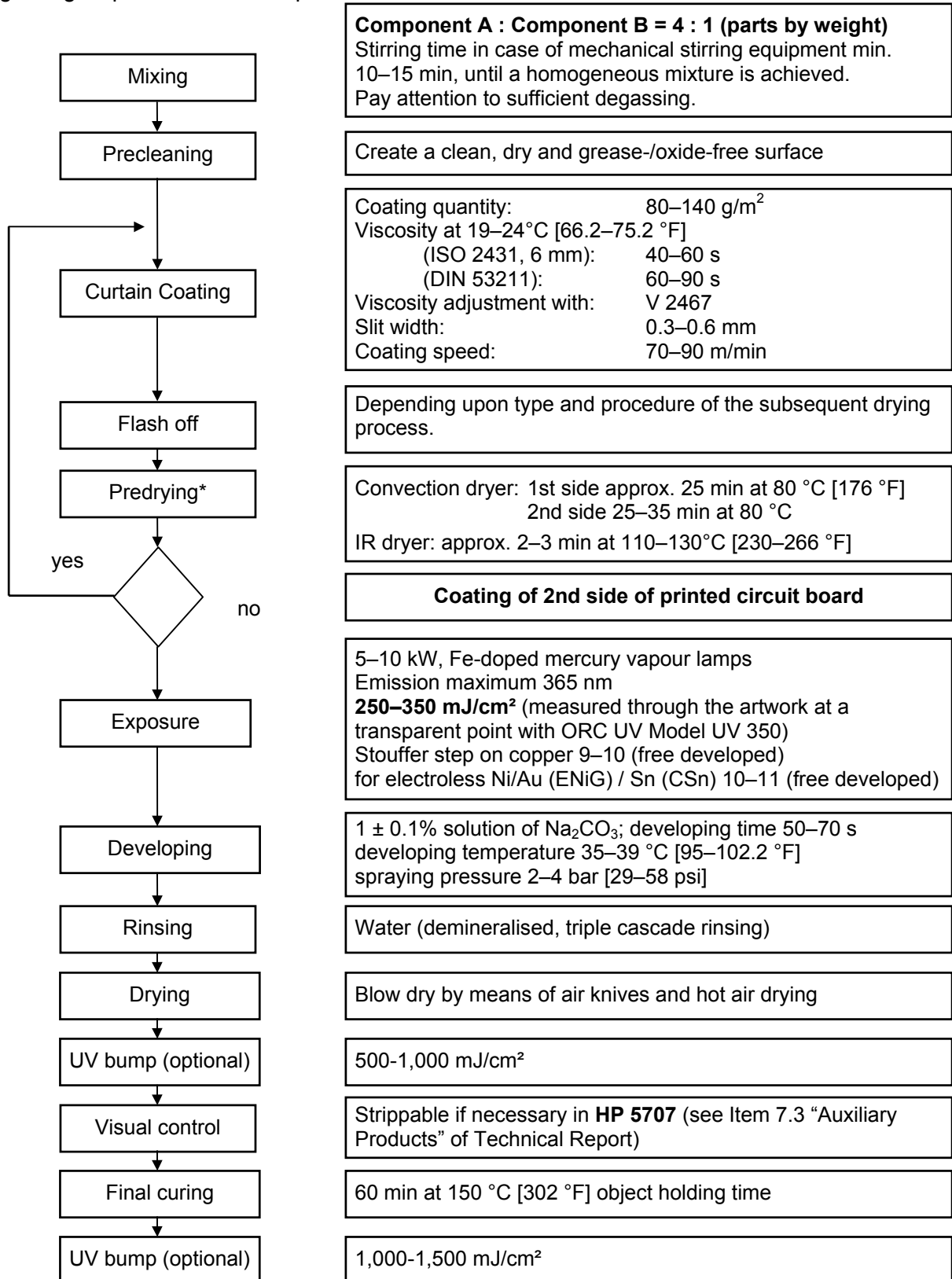
<b>Base</b>	novolak-epoxy-photopolymer
<b>Solids content, ISO 3251</b> (1 h, 125 °C [257 °F], 1 g weighed quantity)	64 ± 2 % by weight
<b>Viscosity of mixture at 20°C</b> ISO 2431 / 6 mm flow cup	80 ± 10 s
<b>Viscosity of mixture at 20 °C [68 °F]</b> DIN 53211 / 4 mm flow cup*	120 ± 20 s
<b>Density at 20 °C [68 °F], ISO 2811-1</b> Component A Component B mixture	1.43 ± 0.05 g/cm <sup>3</sup> 1.03 ± 0.05 g/cm <sup>3</sup> 1.35 ± 0.05 g/cm <sup>3</sup>
<b>Pot life of mixture</b> (at room temperature; approx. 18–23 °C [64.4–73.4 °F]; avoid solar and light radiation, yellow light or yellow filters are mandatory)	at least 7 days
<b>Residual halogen content</b> JPCA-ES01-2003 / IEC 61249-2-21	halogen-free

\* The DIN 53211 has been replaced by the international norm EN ISO 2431. However, on account of the widespread usage of the 4 mm DIN flow cup we continue indicating the viscosity acc. to DIN 53211.



## Recommendation for standard processing of ELPEMER® GL 2467 SM-DG

Detailed recommendations on each process step can be found in our **Application Information AI 2/1**. Our **Application Technology Department (ATD)** will also be pleased to assist you regarding all process relevant queries.



**Component A : Component B = 4 : 1 (parts by weight)**

Stirring time in case of mechanical stirring equipment min. 10–15 min, until a homogeneous mixture is achieved. Pay attention to sufficient degassing.

Create a clean, dry and grease-/oxide-free surface

Coating quantity: 80–140 g/m<sup>2</sup>  
 Viscosity at 19–24°C [66.2–75.2 °F]  
 (ISO 2431, 6 mm): 40–60 s  
 (DIN 53211): 60–90 s  
 Viscosity adjustment with: V 2467  
 Slit width: 0.3–0.6 mm  
 Coating speed: 70–90 m/min

Depending upon type and procedure of the subsequent drying process.

Convection dryer: 1st side approx. 25 min at 80 °C [176 °F]  
 2nd side 25–35 min at 80 °C  
 IR dryer: approx. 2–3 min at 110–130°C [230–266 °F]

**Coating of 2nd side of printed circuit board**

5–10 kW, Fe-doped mercury vapour lamps  
 Emission maximum 365 nm  
**250–350 mJ/cm<sup>2</sup>** (measured through the artwork at a transparent point with ORC UV Model UV 350)  
 Stouffer step on copper 9–10 (free developed)  
 for electroless Ni/Au (ENiG) / Sn (CSn) 10–11 (free developed)

1 ± 0.1% solution of Na<sub>2</sub>CO<sub>3</sub>; developing time 50–70 s  
 developing temperature 35–39 °C [95–102.2 °F]  
 spraying pressure 2–4 bar [29–58 psi]

Water (demineralised, triple cascade rinsing)

Blow dry by means of air knives and hot air drying

500-1,000 mJ/cm<sup>2</sup>

Strippable if necessary in **HP 5707** (see Item 7.3 “Auxiliary Products” of Technical Report)

60 min at 150 °C [302 °F] object holding time

1,000-1,500 mJ/cm<sup>2</sup>

\* Total holding time in subsequent process steps max. 72 h at < 25°C [77 °F]

## Shelf life and storage conditions

Labels on containers show shelf life and storage conditions.



**Shelf life: In sealed original containers at least 6 months**



**Storage conditions: +5 °C bis +25 °C [+41 °F to +77 °F]**



**Protect open containers from UV light**

For warehousing reasons, isolated cases may occur where the shelf life upon shipment is less than the shelf life indicated in this technical report. However, it is ensured that our products have **at least** two-thirds of their shelf life remaining when they leave our company.

## Any questions?

We would be pleased to offer you advice and assistance in solving your problems. Free samples and technical literature are available upon request.

The above information as well as advice given by our Application Technology Department whether in verbal or written form or during product evaluations is provided to the best of our knowledge, but must be regarded as non-binding recommendations, also with respect to possible third-party proprietary rights.

The products are exclusively intended for the applications indicated in the corresponding technical data sheets.

The advisory service does not exempt you from performing your own assessments, in particular of our material safety data sheets and technical information sheets, and of our products as regards their suitability for the applications intended. The application, use and processing of our products and of the products manufactured by you based on the advice given by our Application Technology Department are beyond our control and thus entirely your responsibility. The sale of our products is effected in accordance with our current terms of sale and delivery.

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