

## ELGA Wet Resist LR 3600H

PRODUCT DATA SHEET  
EDITION 01 – 20 May 2015

### PRODUCT DESCRIPTION

Elga Wet resist LR 3600H is a blue colour, negative-working, UV imageable liquid photo polymer. It is designed for Horizontal Type Gravure Roller Coater in mass production of fine line PCBs. Elga Wet resist LR 3600H is applicable to acidic etching process.

### MAIN FEATURES

- Excellent resolution
- Excellent adhesion and conformability
- Wider operation window in development
- High image contrast
- Easy stripping
- Good chemical resistance
- Good for board stacking

### PHISICAL – CHEMICAL PROPERTIES

Properties	Value
Shape	Clear Blue
Chemical composition	UV sensitive acrylic resin composite
Diluent	PMA Thinner
Viscosity	1900 ± 200 cps (25°C, Brookfield viscometer DVI+ n°3 spindle)
Solid Content	39 ± 2% at 105°C * 1h
Shelf Life	6 months

## OPERATIVEPARAMETERS

Parameters	Unit	Value
<b>Coating</b>	Resist Thickness	10 – 15µm (dried)
<b>Baking</b>	Temperature Time	110 – 130°C 50 – 60 sec
<b>Exposure</b>	Stouffer Step 21	5 – 8 covered
<b>Development</b>	Solution Temperature Spray Pressure Dwell Time (B.P. 50%)	Na <sub>2</sub> CO <sub>3</sub> 0.8 – 1.2% 28 – 30°C 1.0 – 1.5 bar 15 – 17 sec
<b>Etching</b>	Solution Temperature	CuCl <sub>2</sub> or FeCl <sub>3</sub> 50°C
<b>Stripping</b>	Stripper Temperature Dwell Time	NaOH 3 – 4% 45 – 50°C 15 – 30 sec

## EXPOSURE PERFORMANCES

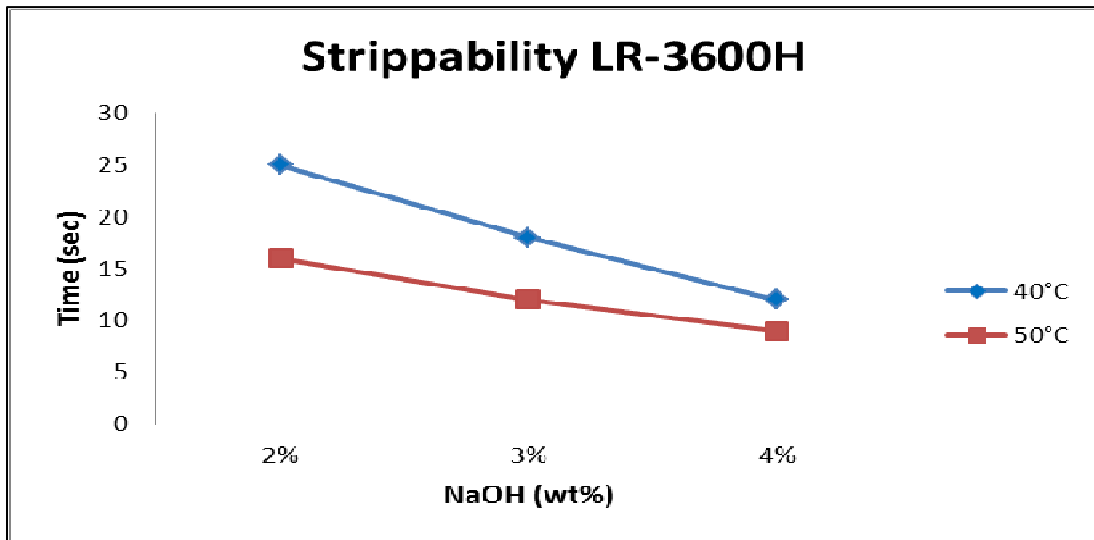
Exposure Energy	Sensitivity (SST 21)	Resolution (space)	Adhesion (line)
<b>50mJ</b>	<b>4</b>	30 µm	30 µm
<b>60mJ</b>	<b>5</b>	30 µm	30 µm
<b>70mJ</b>	<b>6</b>	30 µm	30 µm
<b>80mJ</b>	<b>7</b>	30 µm	30 µm
<b>90mJ</b>	<b>8</b>	30 µm	30 µm
<b>100mJ</b>	<b>8</b>	30 µm	30 µm

## STRIPPING

Exposure Energy	Temperature 40°C			Temperature 50°C		
NaOH Concentration	2%	3%	4%	2%	3%	4%
<b>Stripping Time (sec)</b>	25	18	12	16	12	9
<b>Chip Size</b>	L	LL	LL	L	LL	LL

Remark:

L = 1mm      LL ≥ 3mm



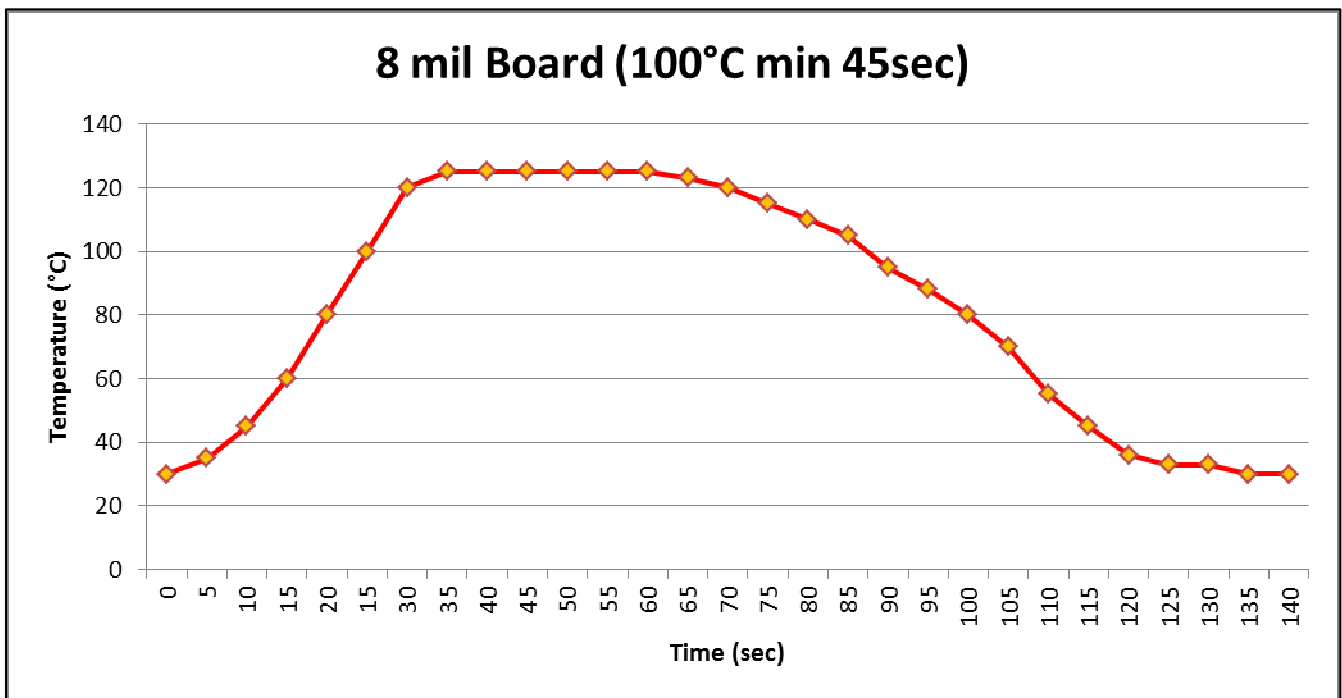
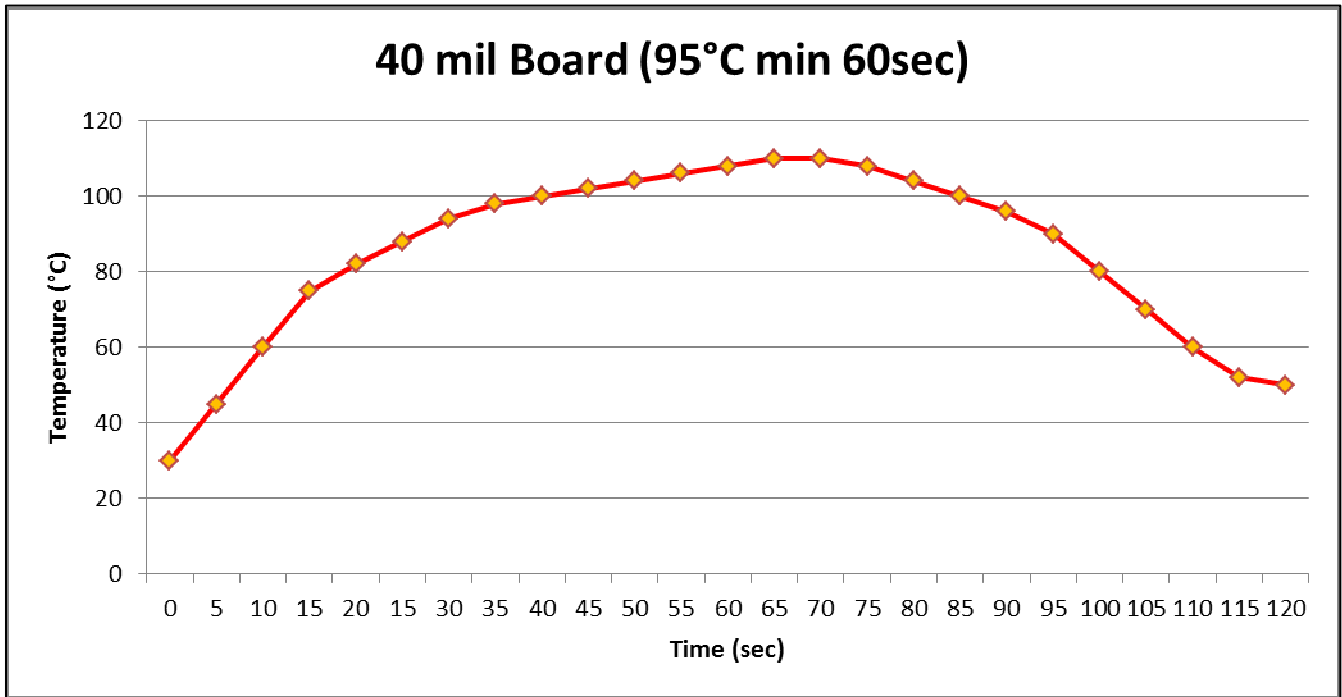
### STACKING TEST

- ✚ Coat ELGA Wet resist LR-3600H on boards.
- ✚ Bake boards 60 sec in a circulating hot air oven of temperature 120°C.
- ✚ Measure the resist thickness by Coating Thickness Gauge.
- ✚ Resist thickness of 12μm measures up.
- ✚ Stack up 2 boards with coating sides face each other.
- ✚ Place horizontally the stacked boards under a 20kg weight.
- ✚ Hold boards in the conditions of 20~25°C, with Hr 50~60%.
- ✚ Separate the 2 boards after 4hr, 8hr, 12hr, 16hr, 24hr to judge the separability and resist surface.
- ✚ Test the Resolution and Adhesion.

Hold Time	4h	8h	12h	16h	24h
Separability	OK	OK	OK	OK	OK

\* SST 21 = 6 – 8 Step

## BAKING



## PACKAGING

The product is available in 18 kg HDPE tanks.

## **STORAGE**

Store in the original container.

Do not store in direct sunlight, high temperature areas or below freezing (5 – 30°C with Hr 50 – 60%).

Open under UV-free yellow light.

Keep container closed when not in use.

## **DISPOSAL**

Dispose the product in accord with local regulations.

## **HANDLING PRECAUTIONS**

Avoid contact with eyes, skin and clothing, do not ingest.

Avoid breathing mist or vapour from solution.

Safety glasses, rubber gloves and rubber apron should be worn when handling this material.

**READ MATERIAL SAFETY DATA SHEET PRIOR TO HANDLING THIS PRODUCT**

**In case of order please indicate this code:**

<b>ELGA Wet Resist LR 3600H</b>	<b>FL-0030</b>
<b>PMA Thinner</b>	<b>FL-0100</b>

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