

# TECHNICAL DATA SHEET

MS-00032500  
Feb 2016

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## UV Curable Solder Resist

# UVR-150G R60

(UL Suffix: UVR-150GR)

### 1. Features

UVR-150G R60 is an UV curable solder resist with excellent chemical resistance and also good hot air leveling, Electro Au and Electroless Au plating resistance.

### 2. Specification

Color	Green
Viscosity	120 dPa/s (Cone plate Viscometer, 5min <sup>-1</sup> / 25deg.C)
Specific gravity	1.6
Cure Condition	1,000mJ/cm <sup>2</sup> (High Pressure Mercury Lamps)
Shelf life	6 months after manufacturing (Store in dark place at 25deg.C or below.)

### 3. Process conditions

Pre-treatment	Acid treatment - Buff scrubbing	
Screen printing	#250 Tetron mesh screen	# 225~250
Curing	1,000mJ/cm <sup>2</sup> (High Pressure Mercury Lamps)	800-1,200mJ/cm <sup>2</sup>

\*In case legend ink is applied, curing condition should be less than 800mJ/cm<sup>2</sup>.

### 4. Attention on process

\*Recommendation is operating in the clean room of the ambient temperature at 20-25deg.C /50-60%RH.

\*Open up the package when it becomes the ambient temperature, and then stir well before use.

\*Appropriate coating thickness on copper circuit after cure is 15-20um. Higher coating thickness may cause insufficient adhesion, chemical resistance and pencil hardness.

\*As curing condition is variable depending on the type of lamps and so on, set optimum conditions of your own. Curing condition out of the specified tolerance range may deteriorate the properties of resist coating.

\*For cleaning screen mesh, ester and/or ether solvent are applicable.

\*Desirable to use ink without dilution. If necessary, apply UVR Reducer for dilution up to 2% maximum.

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## 5. End properties

Item	Test method	Test result
Adhesion	TAIYO Internal Test Method Cross-cut tape stripping test	100 / 100
Pencil hardness	TAIYO Internal Test Method On copper foil, no Cu exposure	5H
Solder heat resistance	Solder float test : Rosin flux, 260deg.C/ 10sec, 3cycles	Passed
Solvent resistance	PGM-AC dipping, temp 20deg.C/30min, Scotch tape peeling test	Passed
Acid resistance	10vol % HCl, temp 20deg.C/30min, Scotch tape peeling test	Passed
Alkaline resistance	10wt% NaOH, temp 20deg.C/30min, Scotch tape peeling test	Passed
Insulation resistance	IPC Comb B pattern Condition: 25-65deg.C, 90%RH, DC100V, 7days Measured: at room temperature, DC500V, 1min	Initial : 5.9 x 10 <sup>13</sup> Ohms Conditioned : 6.7 x 10 <sup>11</sup> Ohms
Dielectric constant	TAIYO Internal Test Method, value at 1MHz Humidify: 25-65deg.C (cycle),90% RH,7days Measured: at room temperature	Initial : 4.1 Conditioned: 4.7
Dissipation factor	TAIYO Internal Test Method, value at 1MHz Humidify: 25-65deg.C (cycle),90% RH, 7days Measured: at room temperature	Initial : 0.02 Conditioned: 0.04

Remarks: All test data shown above on this technical data sheet are based on our laboratory test result and only for reference, not guarantee the same on your process

## 6. Attention

- A. All chemicals in general may have unknown harmful effects. Your highest caution and care is required for handling. For the detail, refer to SDS.
- B. No intentional usage of restricted substances in EU RoHS to this product and its production process; Namely Cadmium, Lead, Mercury, Hexavalent Chromium, PBB and PBDE, Phthalic esters(DEHP, DBP, BBP, DIBP).