
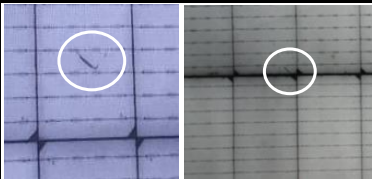
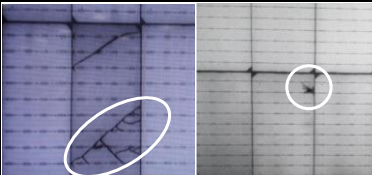
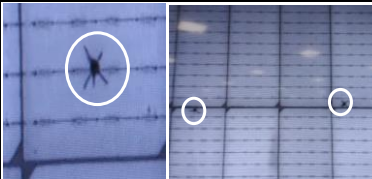
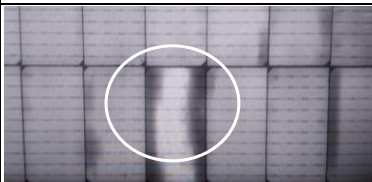
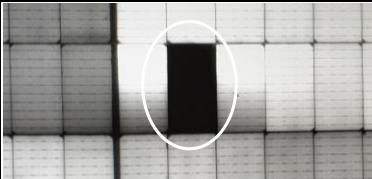

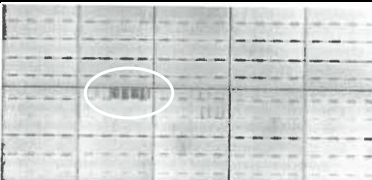
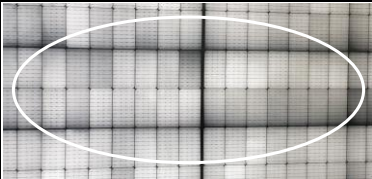
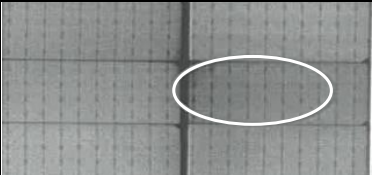

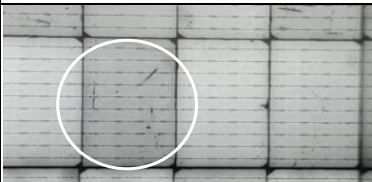

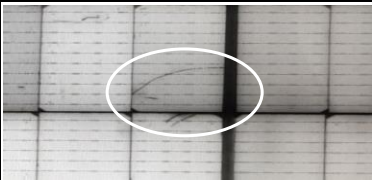
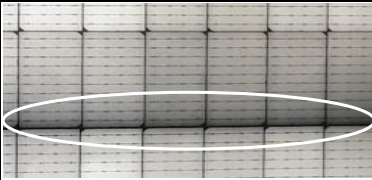
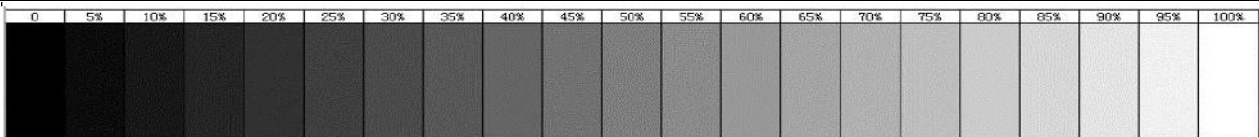


<div>GAUTAM SOLAR</div>		Gautam Solar Private Limited			Document No.	GSPL/ELV/001
		Document Title: IPQC			Issue Date	01-12-24
					Rev. No.	00
		Type Of Document: Pre-EL Inspection Criteria			Page	Page 1 of 1
SR. No.	Defect	Defect Code	Defect Class	Defect Representation	Description	Acceptance Criteria
1	Micro Crack	E1	Major		Crack in Solar Cell creating dark area on either side isolating a particular area of cell.	Not Allowed
2	Branch Crack (Tree Crack, Spider Crack)	E2	Major		Cracks which are in more than one direction or more than one crack connecting to eachother.	Not Allowed
3	Cross Crack	E3	Major		"X" or "V" Type	Not Allowed
4	Poor Soldering	E4	Major		The dark area in the Cell is coming due to the improper soldering of ribbon.	Non-Conforming if it is covering the total length of the Cell Busbar. For MBB: Allow if Area < 5 % Qty Allowed: 3 Cells per Module
5	Dead Cell / Short Circuit Cell	E5	Major		These are completely dark cells or shunted cells or the cells with the wrong polarity.	Not Allowed
6	Dark area due to Cell chipping / Broken	E6	Major		Dark area visible due to broken chips / Cracks.	Not Allowed
7	Finger Interruption	E7	Major		Area of grid finger with a lower luminescence. Interrupted or non-existent grid finger is generated during the solar cell printing process.	Allowed if: Area is ≤10% Qty Allowed: 4 cells/module
8	Current Mismatch / Different Brightness	E8	Major		Difference in brightness in the EL Image due to different cell efficiency or mixing of different cell makes.	Ignore if Grey Value is ≥50% If Grey Value is 20% to 50% Qty Allowed : 10 Cells/ Module Grey Value <20 % not allowed
9	Dark Area / Dark Spot	E9	Major		Cloudy area with a lower Luminescence. They get created due to firing process.	Dark Area Allowed if: Area ≤15% Qty Allowed: 6 cell/Module for MBB Dark Spot Allowed if: Area is ≤10% Qty Allowed: 5% of total cells/ Module
10	Firing Belt Marks	E10	Major		Firing belts marks / Dark areas (Weak/No Luminescence) due to non-homogenous temperature of the conveyor belt.	Not Allowed
11	Cell Pollution	E11	Major		Dark area coming in cell due to wafer slicing and wafer impurity.	Not Allowed
12	Black Heart Cell	E12	Major		These are completely dark cells or shunted cells or the cells with wrong polarity.	Not Allowed
13	Cell Scratch	E13	Minor		There are non-hidden crack type black lines on cell.	Ignore if Length of scratch < 20 mm If Length of scratch is 20mm to 50 mm Qty Allowed: 3 cells per module
14	Dark Edge	E14	Major		The cell shall be free of obvious brightness differece at the edge of the solar cell.	Not Allowed
Grey Value : Grey value scale is used to compare the mismatch issues in the cell and to judge it accordingly.						
PREPARED BY			APPROVED BY		DOCUMENT STATUS	
QUALITY INCHARGE			HEAD QUALITY		CONTROL COPY	