



[Section 1 – Site Information]

Site Address	1-5, Dajang-Ri, Soi-Myeon, Eumseong-Kun, Chungcheongbuk-Do, 369-872, Korea			Installation Date	Sep 11, 2017
Site Capacity	450kWp	Module Type	HiS-S300RG	Module Quantity	1,500pcs
Contact Person	Kildong Hong	Phone Number	(optional)	Today's Date	Oct 17, 2019
E-mail Address	info@hyundai-es.co.kr	Owner of Site	Hyundai Energy Solutions Co.,Ltd..		

[Section 2 – Claim Summary]

Date of the first detection of claimed module(s)	Oct 10, 2019 during the regular site inspection
Total quantity of the claimed modules	4 pcs
a. Visible defect (shattered, burnt, etc.)	1 pcs with shattered glass, 1pcs with burnt mark
b. Invisible defect (performance, insulation, etc)	1 pcs with low performance, 1 pcs with insulation fault

[Section 3 – Claim Details]

Please provide the below information as an evidence of each defective module. (described in the attachment(Required information(Sample)))

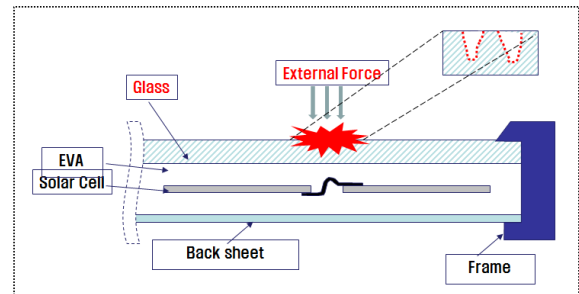
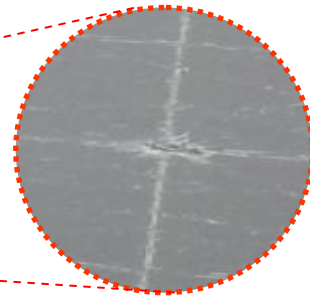
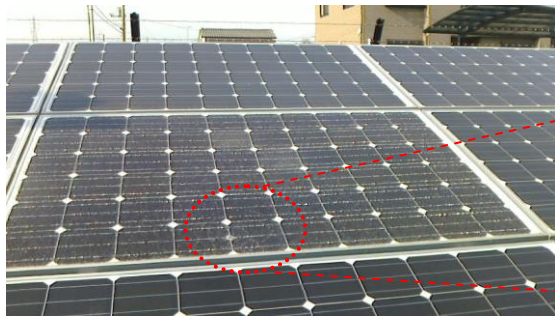
1	Clear picture of the whole module(If possible, both front & back side pictures are generally required)
2	Close picture of the module(divided to 6 sections including module frames)
3	Close picture of the Serial Number which should be readable
4	a. Detailed picture of the anomalous part and origin point for shattered glass
5	b. Detailed picture of the burnt part (both front & back side pictures)
6	c. Performance test report (outdoor IV tester, monitoring report, low voltage test images)
7	d. Insulation resistance test report (measuring images are required)

Please register the S/N of claimed modules.

1	170110-3K-S330RI-0138	11	
2	170110-3K-S330RI-0139	12	
3	170110-3K-S330RI-0247	13	
4	170110-3K-S330RI-0251	14	
5		15	
6		16	
7		17	
8		18	
9		19	
10		20	

[CASE 1: Shattered glass by external force to the glass]

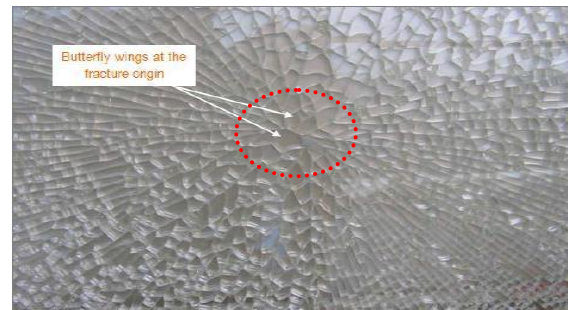
☞ The damaged point from external force can be found onto the glass.



[CASE 2: Spontaneous shattered glass]

☞ No obvious impact point detected

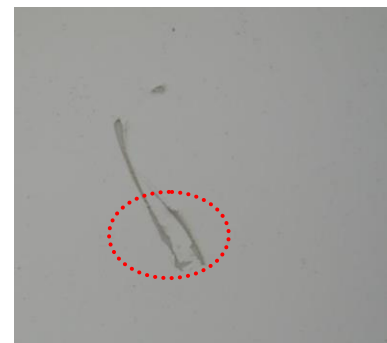
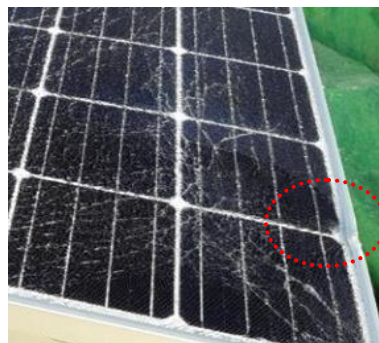
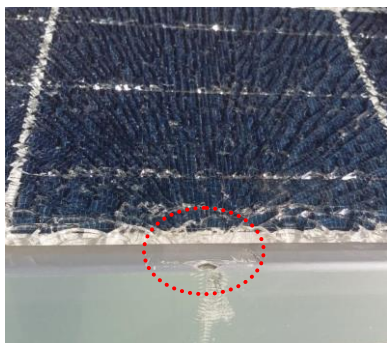
☞ Butterfly wings can be found as the origin of shattered glass



[CASE 3: Shattered glass with deformation of other parts by external force(mostly poor handling)]

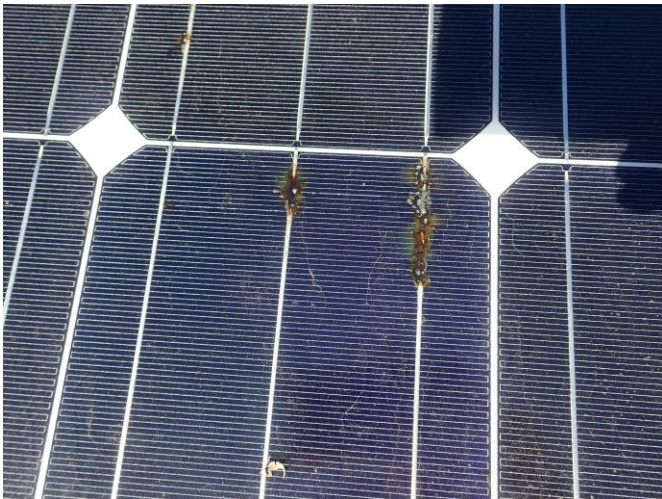
☞ The damaged point from external force to the frame can be found

☞ The damaged point from external force to the back sheet can be found.



[BURNT EXAMPLE 1: Cold solder joint between cell and ribbon]

- ☞ Burnt marks are following the cell electrodes. If there is scar on the back side or impact point on the front, it was occurred by external force.



[BURNT EXAMPLE 2: Soldering defect between inter-ribbon and bus-ribbon]

- ☞ You could check this mark near the top & bottom frame.



[BURNT EXAMPLE 3: Junction box (bypass diode) defect]

- ☞ Bypass diode defect is showing the inflated and burnt junction box.



