



Electroporcelains Division
Bengaluru – 560012, India

Purchase Specification
Group : Photovoltaic Module

PS 901 02 0002

Rev No : 00

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ARC GLASS – 4.0mm Thick

1.0 **ITEM** : AR (anti reflection) coated glass for PV module

2.0 **APPLICATION** : For photovoltaic modules

3.0 **TECHNICAL SPECIFICATIONS**

3.1 **MATERIAL** : Tempered

3.2 **TYPE** : AR coated on one side and textured on other side

3.3 **VISIBLE LIGHT TRANSMISSION** : $\geq 93.5 \%$

3.4 **DIMENSIONS**

Length : 1960 ± 1 MM

Width : 980 ± 1 MM

Thickness : 4.0 ± 0.2 MM

3.5 **MECHANICAL STRENGTH** : 90 MPa min

3.6 **YOUNG MODULUS** : 70 GPa min

3.7 **HARDNESS** : 6 Mohs min

470 Knoop (indenter load 500g)

3.8 **BENDING** : $< 0.30 \%$

3.9 **DENSITY** : 2500 KG/M^3

3.10 All corners to be rounded and edges to be ground.

3.11 Glasses shall be free from visual defects.

4.0 **PACKING CONDITIONS:**

4.1 Glasses shall be individually interleaved with paper sheets

4.2 Glasses shall be tightly packed in a wooden pallet suitable for seaworthy and roadworthy packing to avoid transit damages. Glasses should be covered with polythene sheets to avoid moisture and water entry.

4.3 Each crate shall be marked outside with manufacturer's name, lot no., date of manufacture, size of the glass, Gross & Nett Weight, BHEL PO number and quantity.

5.0 **TEST CERTIFICATE:** Supplier shall provide test certificate conforming the above parameters

6.0 **INSPECTION AT BHEL:**

a. Visual Inspection, Dimensional & Properties evaluation.

b. Single Sampling Plan as per IS:10673-1983, Special Inspection Level S-4, AQL 1.0

Prepared By: PK	Reviewed By: NAR	Approved By: CNP	Date of Issue
			12.09.2016



Electroprocelain Divisions
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PS 901 02 0008

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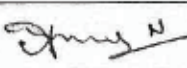
Purchase Specification
Group : Solar Photovoltaic Module

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ARC GLASS – 250W SPV MODULE

- 1.0 **ITEM** : AR (Anti Reflection) coated glass for PV module
- 2.0 **APPLICATION** : It is used in photovoltaic module (250W) for covering the cells during the lamination and for increased absorption of sunlight.
- 3.0 **TECHNICAL SPECIFICATION**
- 3.1 Material : Tempered Glass
- 3.2 Coating : AR coated on one side and textured on other side
- 3.3 Visible light transmission : $\geq 93.5\%$
- 3.4 Dimensions are in mm : Length = 1650 ± 1.0
: Width = 990 ± 1.0
: Thickness 3.2 ± 0.2
- 3.5 Mechanical Strength : 90MPa (Min.)
- 3.6 Young's Modulus : 70Gpa (Min.)
- 3.7 Hardness : 6 Mohs (Min.) / 470 Knoop (indenter load 500g)
- 3.8 Bending : $< 0.3\%$
- 3.9 Density : 2500 Kg/m³
- 3.10 All corners to be rounded and edges to be ground.
- 3.11 Glasses shall be free from visual defects.
- 4.0 **PACKING CONDITIONS**
- 4.1 Glasses shall be individually interleaved with paper sheets.
- 4.2 Glasses shall be tightly packed in a wooden pallet suitable for seaworthy and roadworthy packing to avoid transit damages. Glasses should be covered with polythene sheets to avoid moisture and water entry.
- 4.3 Each pallet shall be labelled with manufacturer's name, lot no., date of manufacture, size of glass, BHEL PO Number and Quantity.
- 5.0 **TEST CERTIFICATE:** Supplier shall provide test certificate for clause (3.1, 3.2, 3.3, and 3.4)
- 6.0 **INSPECTION AT BHEL :**
- a. Visual inspection , Dimensional and properties evaluation .
- b. Single sampling plan as per IS: 10673-1983, special inspection level S-4, AQL 1.0

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SPV – Engg.	NAR 	CNP 	21.04.2017