

# Quality



**BATCH COLOR CONSISTENCY**  
Prevents checkered façades and power inconsistencies.



**MISMATCH DETECTION**  
Ensures Uniform Energy Output In Multicolored Modules.



**QUALITY INSPECTION**  
Examines Beneath The Graphic Layer For Hidden Defects.



**I-V MEASUREMENT (FLASH TEST)**  
Confirms Electrical Performance.



**ELECTROLUMINESCENCE IMAGING (EL-TEST)**  
Detects hidden cell defects.



**DEGRADATION & AGING TESTS**  
Assesses color stability over time.



**BUILDING NORMS (BIPV APPLICATIONS)**  
EN 14449 : Glass in building - Laminated glass and laminated safety glass.  
EN 12600 : Resistance against impact.



**IEC (FOR CUSTOM-MADE MODULES)**  
IEC 61215 : Design qualification and type approval.  
IEC 61730 : Module safety qualification (\*certifications in process).

# Safety

## MISMATCH PREVENTION SOFTWARE :

Translates multi-colored images safely, avoiding hotspot risks.

## FIRE SAFETY & COMPLIANCE :

The following building norms and IEC norms typically apply:

- **EN 13501** | Fire test for building materials
- **IEC 61730** | Module safety qualification

## OPTIONAL HEAT SOAKING :

- **Purpose:** Reduces the risk of spontaneous glass breakage from nickel sulfide inclusions.
- **Relevance:** While not always essential, it can improve the durability and safety of PV modules in certain conditions.
- **Service:** Offered as an additional service to help determine if this extra step would enhance the reliability of your solar modules based on your project's specific needs.

## SUSTAINABILITY

Our solar panels come with a comprehensive Life Cycle Assessment (LCA) for sustainability and performance assurance.

## DURABILITY

Glass/glass solar panels offer an impressive expected lifespan of ~50 years

# This is Not a PAINTING

# IT IS

# SOLAR PANEL

MANUFACTURED IN INDIA

## CONTACT US

NITHIN SAI RENEWABLES PVT. LTD.

✉ [bipvproducts@navgrun.com](mailto:bipvproducts@navgrun.com)

🌐 [www.navgrun.com](http://www.navgrun.com)

CORPORATE OFFICE

Balsa N1, 2nd Floor, Embassy Manyata Business Park, Outer Ring Road, Nagavara, Rachenahalli Village, KR Puram Hobli, Bangalore, India - 560045

FACTORY

Plot No. 75-A, 2nd Phase, KIADB Industrial Area, Chintamani Taluk, Mastenahalli Industrial Area, Chikkaballapur, Karnataka - 563128

Innovative BIPV by  
**Navgrun**



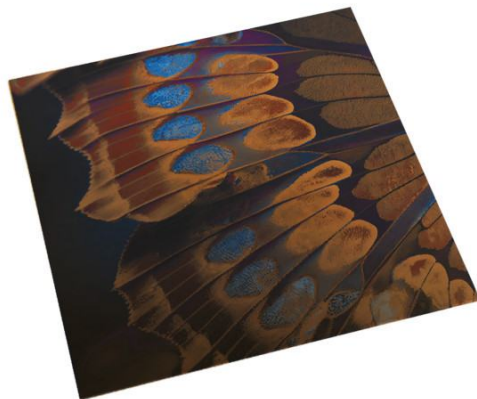
Powered by  
**KameleonSolar**

# ColorBlast®

## SOLAR IN ANY SHADE

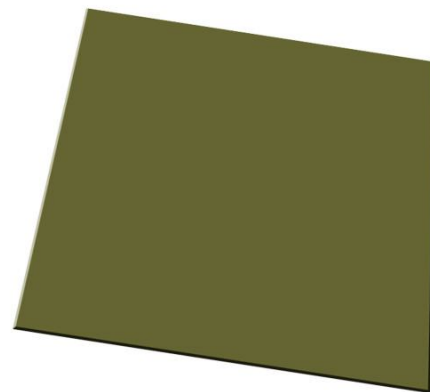
### Design

Advanced Pattern Printing For Intricate Visuals Without Performance Loss.



### Single Color

Matte-finish with exceptional color accuracy in 1000+ Colors



## SOLAR SUITE

To streamline the design and implementation of custom solar panels, we leverage solar suite- an intuitive platform that empowers architects, builders, and installers to seamlessly design solar panels, explore Color options, and evaluate technical impacts. With solar Suite, we can generate detailed datasheets, enabling informed decisions and a streamlined project Planning.

Color

Materials

Dimensions

Length (mm) 1000

Width (mm) 1000

Swap dimensions

To next section

Additional spacing

Cell matrix

Choices

Color

Technology: ColorBlast

Library: RAL

Color: RSW 304265

Materials

Front material: Flat glass 4 mm

Back material: Clear glass 4 mm

Dimensions

Length: 1000

Width: 1000

Additional Spacing

Top: 0

Bottom: 0

Left: 0

Right: 0

Module data

Power: 75 W (75 W total)

Module efficiency: 7.52 %

Module weight: 21.25 kg

Surface Area: 1 m<sup>2</sup>

Weight per m<sup>2</sup>: 21.25 kg

Module thickness: 8.5 mm

Module thickness including junction box: 30.5 mm

Generating datasheet...

100%



# PRODUCT Specifications

## PRODUCT COMPARISON CHART

Product	ColorBlast Single Color	ColorBlast Design
General		
Type	Digital printing	Digital printing
Color Fastness	50 years	50 years
Power	Low - high	Low - high
Aesthetics		
Number of standard colors	1000+	1000+
Custom color matching	•	•
Aesthetic appearance	Matte ceramic/flat, colored glass	Matte ceramic/flat, colored glass
Multi-colored design	◦	•
Color limitations	Limitation on brightness (bright colors have low power)	Limitation on brightness
Graphic layer positioning	Printing inside or outside glass	Printing inside or outside glass
Partial printing (for semi-transparency)	•	•
Other coloring options	Custom rear-side coloring	Custom rear-side coloring
Materials		
Patterned glass	In combination with printing inside glass	In combination with printing inside glass
Material requirements	Black background for uniform appearance	Black background for uniform appearance
Standard opacity options	Opaque	Opaque
Reflectivity/mattness	Highly matte to highly reflective	Highly matte to highly reflective
Standard junction box location	Rear	Rear

## MECHANICAL TABLE

Specification	Value
Length x Width	Min 300×300 mm, up to 2500×3500 mm
Weight	Subject to Dimensions
Junction Box	16BB, 3-6 Split Junction Box with individual Bypass Diodes
Output Cable	Length 300 mm / As Per Customer Requirement, Dia: 4 mm2
Connector	MC4 Compatible
Application Class	Class A (Safety Class II)
Glass Front & Rear	High Transmittance Tempered ARC Glass, 4+2 mm up to 6+6 mm (Customisable)
Solar PV Cells	TOPCON 16BB, G12R N Type
Cell Encapsulant	EPE (EVA-POI)
Country of Origin	India