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Syney Grant Solar: Partnering With Nature

Go Green, Breathe Clean

Creating a Greener PLANET for Generations

QUARTLY NEWSLETTER- OND'24 -

A shift to solar energy is not just about light; it's about enlightening our future

....

From the CEO's Desk

Anurag Garg

CEO, Jakson Solar



Dear Jakson Solar Family,

As we **welcome 2025**, I extend my heartfelt wishes to each one of you for a year filled with joy, success, and new opportunities. Together, we have accomplished remarkable milestones, and I am confident that the coming year will take us to even greater heights.

I am excited to announce that we are expanding our capabilities with the commissioning of a new module production line, reinforcing our commitment to delivering cutting-edge solar technology. While our plans for a state-of-the-art solar cell manufacturing facility are in the pipeline, this initiative underscores our vision for sustained growth and leadership in renewable energy.

We are proud to be on track with our business goals for this financial year—a testament to your dedication and the synergy of our teams. Additionally, our efforts to enhance gender diversity within Jakson Solar have brought vibrant new energy to our workplace. These initiatives are helping foster an inclusive culture where diverse talents thrive and collaborate to drive innovation.

As we embark on this promising journey, I look forward to another year of shared accomplishments and impactful progress. Let us continue to work with passion and purpose, advancing our mission to power a sustainable future for all.

Here's to a rewarding and successful 2025!

Warm regards, Anurag Garg

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1 GW MILESTONE ACHIEVED



Jakson Solar celebrates A remarkable achievement—

synerg

1 GW OF HELIA SOLAR MODULE PRODUCTION

This milestone reflects our unwavering commitment to sustainability, innovation, and excellence. Together, we're empowering communities and shaping a brighter, solar-powered future



synergy

Testament of Dependable Quality



Helia NXT TOPCon module Certification

Jakson Solar's Helia NXT TopCon Glass-Glass Modules have SUCCESSFULLY PASSED RIGOROUS IEC 63209-1 (2021) EXTENDED STRESS TESTING, ensuring unmatched performance and durability. BACKED BY A 30-YEAR PERFORMANCE WARRANTY, these high-efficiency modules set NEW BENCHMARKS IN QUALITY, INNOVATION, AND RELIABILITY

for diverse environments

Panels For Reliable, High-performance Solutions





10000



DEALER ENGAGEMENT ACTIVITIES





Jakson Solar, in partnership with Ram Raja Solar Power Green Energy, hosted a dealer meet on 18th Dec 2024, led by Anurag Garg, CEO, Jakson Solar. With 80+ dealers in attendance, the event celebrated collaboration and innovation, paving the way for a brighter solar future. Special thanks to our channel partner, Mr. Ramakant Patel, and all participants for their support



In collaboration with CGPL Varanasi and SR Enterprises, Jakson Solar hosted a successful dealer meet with 40+ participants. The event showcased our latest solar solutions, strengthened partnerships, and paved the way for shared growth and a sustainable future

Jakson Solar - Preferred Choice Amongst C&I NOTABLE PROJECTS





Food & Beverage



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Capacity: 630 kW Module: Helia Bifacial 550 Wp Partner: Bull Power Energy

Healthcare

NKVC Hospital, Gauhaniya, Prayagraj

Capacity: 51 kW Module: Helia NXT TopCon 580 Wp Partner: Sunearth India

KNOW ABOUT ENCAPSULATION AND ITS IMPORTANCE?

Solar Module has following critical components wherein each component has special characteristic & properties making is suitable for long life of Solar Modules :

Solar Cell

Solar Glass Encapsulations Frame Connecting Ribbons & Bus Bai

Junction Box Sealant

Today we will talk about Encapsulation which is the only component that cannot be easily distinguished separately in a solar module but plays a very pivotal role in safety and performance of Solar Modules during its long service life.

Encapsulation is the layer of protective material surrounding solar cells on both sides in the module, typically made from materials like EVA (Ethylene Vinyl Acetate) or POE (Polyolefin Elastomer) or Co Extruded POE (Combination of layers of EVA & POE)

Encapsulation has following key functions & advantages:

Protection of Solar Cells

Encapsulation helps to protect the solar cells from moisture, dust, UV radiation, and extreme weather conditions. This protects the internal components of the solar module from physical damage or degradation caused by exposure to external elements.

Electrical Insulation: It also prevents short circuits by electrically insulating the solar cells from the external environment.

Enhanced Durability

Encapsulation acts as a barrier against mechanical stresses coming on solar cells during manufacturing/handling/transportation stages as well as stresses from external Environment such as wind, hail, and temperature fluctuations during operation at site. This makes the module more durable and less prone to physical damage, especially in harsh outdoor conditions.

The quality of the encapsulation affects the overall lifespan of the module. With proper encapsulation (right material polymer and thickness), the module can maintain performance upto 30 years or more, minimizing the need for replacements or repairs.

Optimal Light Transmission

Encapsulation materials are designed to be transparent to allow maximum light penetration while protecting the solar cells. This is crucial for maintaining high energy efficiency and optimizing the module's performance.

Prevention of PID (Potential Induced Degradation)

Proper encapsulation plays a role in preventing PID, a phenomenon where solar cells degrade due to voltage differences between the solar module and the ground. High-quality encapsulation ensures that moisture and impurities do not reach the solar cells, which helps mitigate PID risks. This is more critical for Topcon Cells

Thermal Stability

Encapsulation materials help maintain thermal stability by distributing heat evenly across the module. This is especially important in high-temperature environments, where overheating can lead to power loss or even damage. By managing temperature fluctuations, encapsulation improves the reliability of the solar module.

Improved Efficiency and Performance

By maintaining the structural integrity of the solar cells and preventing damage over time, encapsulation helps maintain the module's efficiency, ensuring the Topcon solar module continues to deliver optimal power output over its lifespan.



degradation.

CONCLUSION:

While POE offers significant performance advantages for Topcon Modules in terms of durability, UV resistance, and reduced degradation over time, its use in solar module manufacturing comes with challenges such as higher material costs, processing complexities. EPE addresses these challenges with better adhesion than POE and Better protection than EVA and cost in between EVA & POE. However, with ongoing research and development, many of these challenges can be overcome with optimum combination of Encapsulations.

EVA which is commonly used with PERC Cells is not considered best choice for Topcon Cells, Since Topcon Cells are more prone to moisture, POE or Co Extruded POE provides better reliability for Topcon solar modules encapsulation.

Key Advantages of POE:

Higher Efficiency: POE materials can help improve the overall efficiency of solar modules, especially in high-temperature environments.

Better UV Resistance: POE has improved UV stability, meaning it is less likely to degrade or yellow under prolonged exposure to sunlight. This results in a longer lifespan and more consistent power output over time.

POE encapsulants tend to have lower power degradation over time compared to EVA. This makes POE a better option for

POE provides excellent thermal stability, which helps the module maintain consistent performance even in extreme temperatures.

Better Moisture Resistance:

POE also provides better protection against moisture ingress, which is one of the leading causes of module



HR & PLANT NEWS



Celebrations @ Jakson

CELEBRATING DIWALI AT THE PLANT BRINGS JOY AND UNITY AMONG EMPLOYEES. THE WORKSPACE IS ADORNED WITH DIYAS AND RANGOLI, FOSTERING A FESTIVE SPIRIT. A SMALL PUJA, SWEETS DISTRIBUTION, AND TEAM BONDING ACTIVITIES MAKE THE OCCASION SPECIAL, SPREADING POSITIVITY AND CHEER

Birthday Celebrations @ jakson

CELEBRATING JAKSON EMPLOYEES' BIRTHDAYS FOSTERS CAMARADERIE AND APPRECIATION, WITH CAKE CUTTING, WARM WISHES, AND TEAM GATHERINGS, MAKING THEM FEEL VALUED



Energy Conservation Day Quiz

JAKSON PROMOTES AWARENESS, LEARNING, AND SUSTAINABILITY.

Christmas Celebrations @ Jakson

CELEBRATING CHRISTMAS AT OUR PLANT BRINGS JOY WITH DECORATIONS, GIFTS, CAKE-CUTTING, AND TEAM BONDING ACTIVITIES.



Market Activations with Partners Engage, Promote, Grow







JAKSON SOLAR SHINES AT MAHA KUMBH'2025 @ PRAYAGRAJ













ENHANCED VISIBILITY THROUGH BRANDING





Together, We can restore The Planet

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