

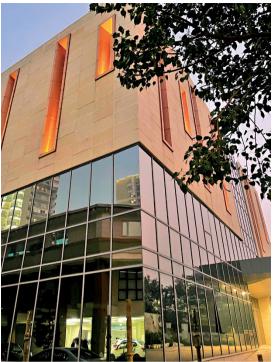
FROM BLURRING BOUNDARIES TO STATEMENT SHOWSTOPPERS, HERE'S WHAT THIS YEAR HAS IN STORE

ECO CONSCIOUS LUXURY

The burgeoning notion of sustainability and green luxe can find consonance in modern homes

Bv VISHAL SHARMA





THE GREEN DREAM The FSSAI office

Facade that uses DGU Glass (above): a render of a luxury group housing project that marries luxury with sustainability (left)

ver the years, innovative design has become a defining tenet for sustainable development in varied architectural typologies. With more and more people shifting away from standard building structures and instead opting for a sustainable yet practical design approach, it is crucial to integrate dual-purpose materials like vertical green facades, recycled polymers, and smart glass in luxury residential designs where long-term cost-efficient solutions can be implemented. Simultaneously, high-rise residential buildings can benefit from advanced glazing technologies, passive design strategies, and smart materials to enhance energy efficiency, ensure optimal daylight control and naturally improve thermal control.

Harnessing Renewable Energy In recent years, one notable advancement in sustainable

technology has been the widespread adoption of photovoltaic solar panels, which quietly convert sunlight into clean, renewable electricity, both on rooftops and as ground-mounted systems. However, we must explore inventive ways to integrate them into building facades, considering the amount of sunlight vertical surfaces receive. With improved efficiency and affordability, solar water heaters also prove to be a practical means of generating hot water for residential use in urban areas. While solar energy is one of the promising renewable energy sources, spatial requirements for large-scale solar installations are limited. To address this, facades should be designed to support vertical gardens, creating modules that facilitate easy maintenance, water supply, and growth materials.

Climate-Responsive Materials The foundation of any sustainable measure lies in the materials we



use. For instance, bio composting

or ground-source heat pumps can be installed to efficiently regulate indoor temperatures by tapping into the earth's stable underground heat. Additionally, thermal insulation on roofs of residences effectively

curtails heat gain, enhancing

overall energy efficiency in homes. It is also imperative to incorporate

rainwater-harvesting systems to conserve water for non-potable

uses like irrigation, toilet flushing,

greywater management, not only

one'sday-to-day activities, further promotes sustainability. Devising Responsible Design Strategies With the help of technology, we

must systematically devise practical

on construction sites but also in

and laundry. Moreover, integrating

and using natural materials in construction practices have become the cornerstone of cost-effective and environmentally friendly buildings. Similarly, geothermal



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and effective means to eliminate waste, curtail energy and resource consumption, retrofit and repurpose structures and landscapes, and apply nature-based solutions to restore habitats. While responsible design principles remain the foundation of a sustainable building, embracing innovative strategies. We have been consciously including eco-friendly energyefficient systems such as Smart Glass or DGU on façades for optimised

daylight, which not only elevates the luxury quotient but also enables reduced ecological footprint. One such example is DGU glass from Saint Gobain, which is being implemented in our upcoming luxury group housing project in Moradabad

Rather than surpassing microtrends, it is essential to focus on design principles and architectural tenets that withstand short-term transient trends.

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