



Graphene Innovation Experts

World's only Trillion Dollar Nanomaterial
Leading 4th Industrial Revolution

ABOUT US

Monoatom Labs, founded by 6-time President of India Awardee Sushanth Patnaik and business leader Aayush Bansal, bridges breakthrough graphene research with large-scale industrial deployment. Supported by scientists from IISc, IIT, and NCL, we turn lab-scale innovations into commercially viable, high-performance material solutions. We push boundaries, redefine performance standards, and build graphene-based technologies that advance industries including aerospace, defence, clean energy, solar, construction, tyres, chemicals, filtration, performance textiles, and engineered polymers.

OUR UNIQUE APPROACH

At Monoatom Labs, we have developed a graphene production process combining innovation and sustainability. Unlike conventional methods that are expensive and waste-heavy, our approach delivers 99.9% pure, few-layer graphene at 1/10th the industry cost, while keeping emissions and resource use to a minimum.



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KEY HIGHLIGHTS

- Increases light transmittance; potential +2–3 W/module from AR effect.
- Hydrophobic / self-cleaning effect → reduced dust deposition and cleaning frequency.
- Extends panel life by protecting against UV, chemicals and micro-abrasion.

GRAFFISOL

GRAPHENE SOLAR COATING

Transparent graphene-based coating for solar glass / PV modules, improving photon capture, surface conductivity and anti-soiling properties.

COST-BENEFIT ANALYSIS

- Graphene Mix: <0.5% in coating solids
- Base Product: 1 m² solar panel glass coating
- Cost Increase: ≈3%
- Efficiency Gain: up to ~25% higher effective energy output in soiling-prone conditions

COMPETITIVE MATRIX

Feature / Player	Your Graphene Solar Coating	ZnShine Solar Graphene Glass	GrapheneCreat ions Solar & Glass Coating	Koalent Glass Coatings
Application	Aftermarket / OEM glass coating for modules	Factory-applied graphene anti-reflection PV glass	Graphene-based coatings for solar glass & protection	Silica-based glass coatings focused on durability & clarity
Key Benefits	AR + self-cleaning + conductivity + climate-specific tuning	+0.5–1% transmittance, +2–3 W/module, self-cleaning	Multi-property: scratch resistance, anti-static, hydrophobic /hydrophilic	Hydrophobic, pH tolerant, long-lasting clarity
Differentiation	Designed for dusty Indian sites; O&M performance guarantee possible	Proven PV OEM solution	Broad coating portfolio, more custom projects	General glass product, not graphene-based