



Heliene Leads with Low-Toxicity Modules: Safer, Compliant, and Ready for the Future

*Buying modules that pass **TCLP** (Toxicity Characteristic Leaching Procedure) and **PFAS** (Perfluoroalkyl - and Polyfluoroalkyl Substances) toxicity testing offers several key benefits to developers:*

Environmental Compliance

Benefit: Utilizing low-toxicity components minimizes environmental harm throughout the product's lifecycle—including manufacturing, usage, and disposal.

Lower End-of-Life Disposal Costs

Benefit: Modules that pass the TCLP & PFAS test are often easier and less expensive to dispose of, potentially leading to substantial cost savings at the end of the system's lifecycle.

Smoother Permitting & Approval

Benefit: Helps prevent permitting complications, particularly on environmentally sensitive sites such as farmland or areas near water bodies.

Improved ESG Profile

Benefit: Choosing low-toxicity modules demonstrates a strong commitment to Environmental, Social, and Governance (ESG) principles, enhancing appeal to investors and other stakeholders.

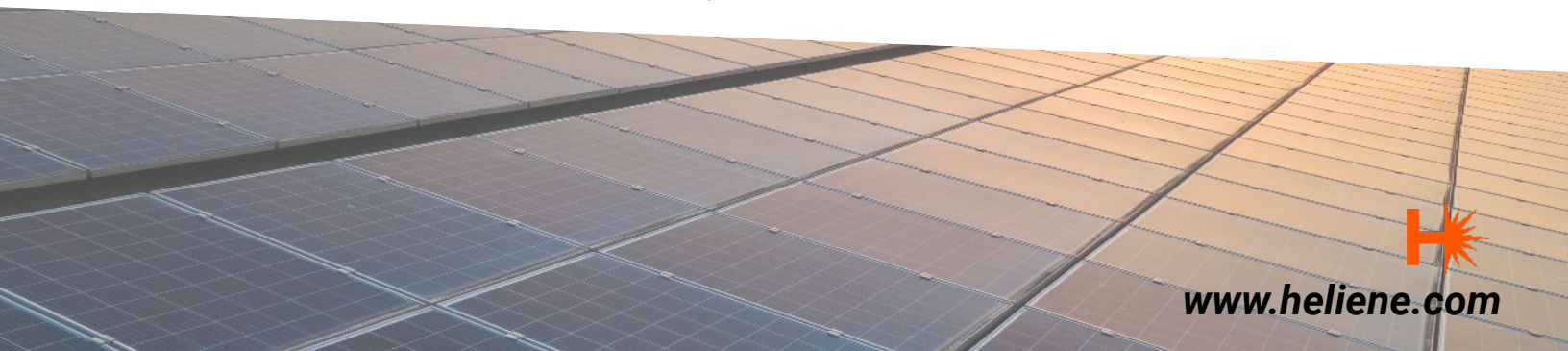
Reduced Legal & Regulatory Risk

Benefit: Reduces the risk of future legal or financial liabilities from environmental contamination or toxic exposure, and helps future-proof projects against tightening environmental regulations.

Project Bankability and Insurance

Benefit: Utilizing TCLP and PFAS-free certified modules can enhance project bankability and potentially reduce insurance risks or premiums.

Clean Energy Just Got Cleaner



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TCLP Testing & PFAS Testing

TCLP: EPA1311, ASTM-E3325

PFAS: IEC 62321-3-2-2020, EN 17681-1:2022, EN 17681-2:2022

**Test reports can be made available upon request*

TCLP Testing

Mercury	Not Detected
Arsenic	Not Detected
Barium	Not Detected
Cadmium	Not Detected
Chromium	Not Detected
Lead	Within Limits
Selenium	Not Detected
Silver	Not Detected

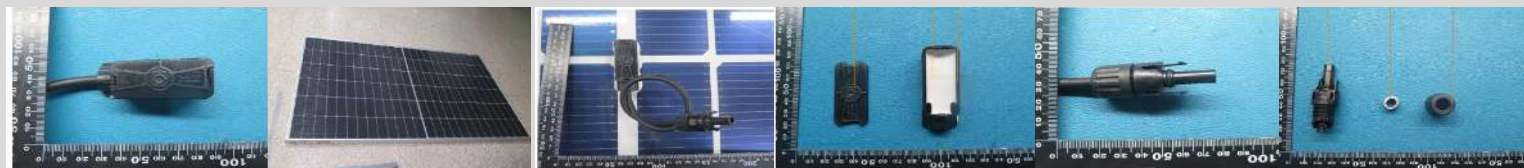
TCLP (Toxicity Characteristic Leaching Procedure) testing determines whether hazardous substances like lead, cadmium, or other heavy metals can leach from solar modules under landfill conditions. This EPA-approved test simulates long-term disposal to assess environmental risk and regulatory compliance for waste classification and safe end-of-life management.



**Module sections tested*

PFAS Testing

PFAS testing detects and measures harmful 545 perfluoroalkyl - and polyfluoroalkyl substances in water, soil, air, or biological samples. Using advanced methods like LC-MS/MS and IEC-approved protocols, these test provide accurate, low-level detection to support regulatory compliance, environmental safety, and health protection.



**Module sections tested*



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