



» INDUSTRY BULLETIN

Electric Vehicle (EV) Charging Market Solutions for Level 1, 2, and DC public charging equipment

With funding a priority for the industry, considerable growth of the infrastructure supporting the EV charging market is expected. In the U.S., the Infrastructure Investment and Jobs Act (IIJA)—more commonly known as the Bipartisan Infrastructure Law (BIL)—authorizes funds for highways, transportation safety, and transit programs. This includes providing \$7.5 billion toward building a national network of North American-made electric vehicle chargers. This growth means new challenges for materials and

technologies to ensure these state-of-the-art charging stations meet critical standards and performance specifications.

Public charging stations should be economical, safe and easy to use, aesthetically pleasing, and durable to withstand harsh outdoor environments. Materials need to meet regulations (such as UL flammability compliance), be hygienic, and provide flexibility in design for options such as lightweighting or varied exterior finishes.

The Avient portfolio of solutions for the EV market includes a number of polymer additives and colorants that can improve the performance and aesthetics of electric vehicle charging stations. Custom formulations can also be developed using Smartbatch™ Combination Colorants & Additives, combining colors and effects with functionality to meet specific requirements.



TECHNOLOGIES AVAILABLE TO ENHANCE PUBLIC CHARGING STATIONS

ADDITIVE TECHNOLOGIES	
Flame retardant additives	Mitigates fire hazard by reducing flame spread and heat release
Anti-static and conductive additives	Controls build-up of static charges to reduce risk of fire and enhance safety
Antimicrobial technology	Reduces bacterial, mold and fungal growth on the surface and through the thickness of the part
Light spectrum management	Provides UV protection to prevent discoloration or degradation of mechanical properties for lasting outdoor durability and color fastness
Scratch and mar resistant additives	Adds protection to stand up to surface abrasion and wear and tear

COLORANT TECHNOLOGIES	
UL 94 colorants	Over 2,000 UL 94-recognized color concentrates, including for high temperature resins
Special effect colorants	Visual enhancements including metallic, granite, or pearlescent appearance
Bio colorants and additives	For use in bio-based plastics without compromising performance

Avient supports all of these solutions with a range of world-class services, including:

- Polymer material expertise with a focus on sustainability
- Application development expertise with global design centers
- Regulatory compliance coordination to help mitigate risk
- Reliable field technical services and support
- Leading color trend and design services



1.844.4AVIENT
www.avient.com



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