

# Fiber Reinforced Polymer Initiative

*Fiber Reinforced Polymers for Civil Infrastructure*



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## Scope

An unbiased source of sound technical information based on consensus standards, focused on practical implementation, design advice and training, third party qualification and oversight, plant certification, and independent quality assurance testing.



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## Unbiased Technical Assistance

The FRP initiative serves as an independent resource for practical design and use information for the industry. We promote training, case studies, and evaluation of design software tools that foster more commercial implementation of fiber reinforced polymers in civil infrastructure.



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## State of FRP Now

FRP is imported into the U.S. from factories in China that do not meet QA/QC standards. This material is being used in U.S. construction.





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**This is Unacceptable in Our Infrastructure.**



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## Independent Third-Party Certification

The FRP initiative supports:

- Development of consensus standards for quality control and testing
- Publication of a Quality Control Manual based on ACI, AASHTO, FIB and other standards
- Management of independent plant certification program
- Performance of inspections on behalf of state DOTs and other owners
- Facilitating technology transfer of industry standards, design methodology and appropriate use, to designers, state DOTs and other owners



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## Benefits of Third-Party Certification

- Development, publication, and enforcement of consensus standards for producers of FRP
- High degree of quality assurance for DOTs and other owners
- Eliminates the need for DOT personnel to monitor plants
- Creates a level of confidence among specifiers who are selecting FRP reinforcement from certified producers for their projects
- Creates a framework for further development of standards, working in partnership with FHWA, DOTs, AASHTO, ASTM, ACI, etc.



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## Independent QA for DOT Materials Labs

- Majority of State DOT materials labs are unfamiliar and unable to perform QA oversight of FRPs
  - The polymer materials are unknown to them
  - They don't have the specialized equipment necessary to do QA
- The FRP initiative will support the development of QA testing for specific projects on behalf of the State DOT/County/City/Owner





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## How Does This FRP Initiative Fit Into the Bigger Picture?

- The American Composites Manufacturers Association is primarily a marketing and trade association with a broad focus on the myriad of applications for composites – everything from automotive uses, to fiberglass gratings, architectural claddings, corrosions, utility communications structures and more.
- The development of a construction-based FRP resource focuses exclusively on the intersection of FRPs in civil infrastructure and will complement ACMA's marketing focus with a technical focus centered on building resilient infrastructure through QA/QC program development.



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## No Duplication of Services

- Rather than infringing on the work of any established group such as ACI, CSA, AASHTO or PCI, we will seek collaborative relationships to transfer technical knowledge and advance the use of FRPs in resilient civil infrastructure construction.

