Moving materials and processes to commercial readiness

With a diversity of composites technology and a large number of small and medium enterprises (SMEs) involved in the composites industry, Ohio is a central location for IACMI—The Composites Institute to support SMEs advancing toward commercialization of their innovations. It features significant activity in aerospace composites and is also home to our Compressed Gas Storage Area.

Facility Hosts and Partners

The Dayton Composites Center at the University of Dayton Research Institute (UDRI) supports R&D of advanced composites manufacturing, modeling and characterization. The facility features full-scale manufacturing work cells and SMB incubation.

Key IACMI members who've been involved in Ohio projects include: Additive Engineering Solutions, Airbus, Cincinnati Inc., CRG, DuPont, Eaton, Globe Machine, Hapco, Harmony Systems and Service, Ineos Composites, Jobs Ohio, Joby Aviation, Lockheed Martin, Michelman, Milacron, NAWA America, Northrop Grumman, Owens Corning, Saint-Gobain, Solvay, Steelhead Composites, Teijin/Renegade, VW, and ZSK.

Research Features

Key Equipment and Technology:

- Finite element analysis, 3D stress analysis, and virtual textile morphology software
- Tailored fiber placement machine
- Additive manufacturing, autoclave, press, VARTM, RapidClave® and Gerber Cutting Table
- Coating and bonding technologies including adhesive bonding, nanocomposite coating, EMI shielding, and environmental conditioning
- Agile tooling equipment
- Characterization and testing equipment

Recent projects:

- High production capacity of nanotechnology interlaminar reinforcement product
- Rapid curing prepreg and sheet molding compound
- Composites recycling non-incineration technology
- Tailored fiber placement for complex preforms
- Robotic long fiber injection compression molding
- Femto-second laser surface treatment

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