



American Composites Manufacturers Association – Fire Committee

Case History: Architectural Applications Involving Fire Performance

By filling in the following details about the application of your products and/or services, you will help the Fire Committee define viable market areas and give ACMA’s public relations firm the facts that could lead to a case history article in a trade magazine.

Please return this form to: Nicholas A Dembsey, Fire Committee Chair, ndembsey@wpi.edu; John Busel, Director Composites Growth Initiative, jbusel@acmanet.org; and Doug Barno, dsbgroup@alltel.net.

*Your name:	Aram Mekjian	*Title:	President
*Company:	Mektech Composites Inc	*Phone:	201-666-4880
*Address:	40 Strawberry Hill Road	*Fax:	201-666-4303
*City:	Hillsdale	*State:	NJ
*Email:	mekmail@prodigy.net	*Zip:	7642
* must be completed			

Name of product involved: Clock Tower on the roof of City Hall in New York City
(Attach available brochures, fact sheets, and other information.)

Customer/End User Info

*Contact person:	Matt Hammatt	Title:	
Company:	New England Boatworks Inc	*Phone:	401-683-6110
Address:	1 Lagoon Road	Fax:	401-683-6988
City:	Portsmouth	State:	RI
*Email:		Zip:	2871

*Describe customer’s business (including principle products manufactured at this location, unusual equipment designs or operating conditions, etc.)

Builds yachts and boats. Also does Architectural work. Previously built a 20' diameter dome (with a balsa core) and 5 turrets using Phenolic resin on the Law School at Quinnipiac College

*Describe customer challenge
(problem needing correction, solutions tried before, materials used, area of operations, applications affected, etc.)

There had been three fires in the Clock Tower previously. The client wanted a material that would not burn readily. It was decided to build it out of Phenolic due to the superior Fire / Smoke properties.

*Describe your solution (product features & benefits; when put into service; approvals required)

These were large parts that had to be hand laid. The low viscosity (400 cps) of the Cellobond Phenolic resin from Mektech Composites allowed them to use the Hand Lay-up process, using a balsa core and painting the parts. The light weight of composites was another factor.

*Describe results to demonstrate that composites “win” versus alternative materials
(*advantages gained, such as reduced maintenance, increased production or quality, cost savings, improved safety and/or environmental — see examples below*)

The weight reduction, ease of fabrication, and part consolidation offered by composites was desirable. By using Cellobond Phenolic, they did not have to sacrifice Fire Safety

*Are there any photographs, charts, or graphs available for use in the story?

Yes No (“X” fills; spacebar clears)

*Has customer given permission to use their name in story?

Yes No (“X” fills; spacebar clears)

*Will customer allow us to quote a management representative in the story?

Yes No (“X” fills; spacebar clears)

GENERAL BENEFITS EXAMPLES

- Fire Performance
- Light weight – reduced weight
- High strength
- Corrosion resistance
- Weather resistance
- High impact strength
- Radar transparency
- Non-magnetic
- Non-conductive
- High strength-to-weight ratio
- Design flexibility
- Energy efficient
- High dielectric strength (insulator)
- Dimensional stability
- Small to large part geometry
- Customized surface finish
- Environmentally sound or safe
- Others

RESULTS MESSAGE EXAMPLES

- Rapid installation – modular components, easier handling because it is lightweight
- Reduced or Low maintenance – no painting because color is molded in
- Reduced inspection – easier to inspect
- Parts consolidation – faster assembly and reduced installation time
- Lower operator fatigue
- Affordable
- Cost savings / cost effective– lower installed or life-cycle costs
- Reduced personal safety – less on the job injuries
- Long term durability – extended service life
- Influenced styling/design – sculptural form providing design versatility
- Increased performance
- More attractive, functional, durable
- Reduced environmental risk - leading to reduced disposal issues
- Others