



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
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* must be completed			

Name of product involved: Roof panels on escalator at Liverpool Station in London Underground - subway system in London
(Attach available brochures, fact sheets, and other information.)

Customer/End User Info

*Contact person:		Title:	
Company:		*Phone:	
Address:		Fax:	
City:	State:	Zip:	0
*Email:			

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

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

Following a fire at Kings Cross Station in London Underground, the Fire Codes for any applications became very stringent embodied in BS 6853. Phenolic was the only composite that would meet the Fire/Smoke/Smoke Toxicity specifications. Ceiling panels were to be constructed above the escalator. Phenolic resin had to be used

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

Cellobond Phenolic was used because of the ease of fabrication, part consolidation and light weight. It easily met the Fire/Smoke codes of BS 6853

*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*)

Phenolic panels were constructed using the Hand Lay-up process and painted.

*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