



# Polymer Composites as Construction Materials

## Application Summary Sheet 9

**Title:** Fascias, facades and decorative mouldings

**Target Audience:** Architects, Structural Engineers

**Keywords:** Mouldings, architectural features

### Overview of application / summary

FRP mouldings offer a highly cost effective means of adding aesthetic value to buildings. Architectural features such as facades, sculptures, clock towers, domes and cupolas can be easily and effectively replicated in FRP, providing considerable advantages over the replacement item such as low weight, rapid installation, durability and low maintenance requirements.



GRP Cupola



Lightning tree



GRP canopy

### Impact of Application

#### **Financial:**

Highly cost effective material for production of replica cupolas, chimneys, domes, clock towers, pinnacles, statues, pediments etc. as an alternative material to stone, brick and wood, also roofing materials such as slates, tiles and lead.

Principal savings arise through reduction in use of skilled craftsmen and on site labour.

Lower initial cost.

Low through life costs from reduced maintenance, cleaning and repairs.

Lower transport and lifting costs, reduced scaffolding requirements.

**Environmental:**

Reduces need for quarried materials such as Purbeck limestone, Portland stone, granite etc, (land use, blasting, dust pollution).  
Reduced heavy transport requirements.

**Social:**

Adds aesthetic value to buildings.

**Engineering**

Ability to easily replicate product.

Lightweight - easy to crane and manhandle on site, particular at height.

Lightweight - low loads to supporting structures such as trussed rafter roofs and brickwork cladding.

Durable - reduced maintenance needs, easy to clean.

Choice of colour and surface texture

UV stable.

May be used to disguise or as housing for water tanks, lift machinery, radio transmitters etc.