



Polymer Composites as Construction Materials

Application Summary Sheet 21

Title: Roadside Safety Columns and Crash Barriers

Target Audience: Design Engineers, Lighting Engineers, Composite Manufacturers

Keywords: Corrosion resistance, Impact Performance, durability, Polymer composites, through life costs, Roadside applications.

Overview of application / summary:

Polymer composite lighting columns were first introduced in the 1960's. Hand laminated columns and rotational casting were provided across the UK at a range of heights from 5 m to 10 m. Early designs were very flexible and prone to manufacturing defects and due to their higher cost did not make much impact on the market.

In 1990 a new UK initiative designed columns in accordance with UK standards and introduced a new range of high durability columns. At the same time the EU was working on a passive safety standard which resulted in the first test standard which enables columns and other roadside equipment to be categorised in terms of the likely survivability of an accident. This market is therefore now about to be led by legislation.

The new columns are able to offer extended life, low maintenance requirements and are able to provide passive safety. The market size in the UK is some 6 million columns many of which are due for replacement (current rate (5%) resulting in a potential market of £45 million pa.

This is therefore an important application in terms of potential market size, there is the added interest of legislation playing a role in technology uptake, and considerable environmental and through life cost implications.

Impact of application

Engineering:

Financial:

Environmental:

Social

Prepared by BRE and Trend 2000 Ltd (Partners in Innovation Project)
For further information please consult the project website:

www.polymercomposites.co.uk

Robustness of research

Future developments

Where to get further information

Companies

Safecomp Ltd

www.safecomp.org

Articles