

SANDBROOK COMMUNITY PRIMARY SCHOOL, ROCHDALE

KALZIP LIMITED



Sandbrook Community Primary School in Rochdale is a model of modern academic thinking, where a school not only has to perform for the benefit of its students but also for the community and the environment. The school is proving a blueprint for sustainability by saving energy and even selling it back to its providers ... with a little help from Kalzip Limited.

Sandbrook is a £6 million replacement for two primary schools; as the first of the new schools to be constructed in Rochdale borough, and to comply with the LEA's sustainable policy, full advantage had to be made of renewable resources, sustainable materials and low energy features to help reduce its carbon footprint.

Architects at the Impact Partnership designed a single storey, steel framed building to take full advantage of natural light and ventilation, with a south facing front façade providing solar shading and harnessing power from the sun to provide heating, lighting and hot water.

The 200 square metres assembly hall roof captures solar energy to provide electricity generated via an 8.7kW Kalzip AluPlusSolar integrated photovoltaic roof system as well as the heating of hot water through passive solar panels.

The makeup of the roof material – factory laminated photovoltaic panels - also provides the necessary insulation and acoustic values while allowing the roof line to have a slight barrel form to enhance aesthetics. Some 3,000 square metres Kalzip standing seam in sustainable aluminium has also been used over many other roof elements.

A display panel in the school's entrance foyer, indicating the amount of electricity currently being generated, cumulative watts to date and CO₂ savings, helps incorporate the school's sustainability features into the science curriculum as part of learning about energy.

SUSTAINABLE FACTS

- The energy required for heating, lighting and powering equipment in an ordinary school classroom releases about 4,000 kg of CO₂ every year – enough to fill four hot air balloons 10 metres in diameter.
- UK schools spend about £450 million on energy every year – three times as much as they do on books and about 3.5 per cent of their budgets.
- Some schools spend four times more per pupil than similar schools in the same region. The difference is often to do with how effectively schools manage their energy use.
- Surveys show that through simple low cost and no cost measures, schools can reduce their fuel bills by up to 10 per cent while also reducing their CO₂ emissions.



www.kalzip.com