

Safeguarding the future

What do we mean by sustainability?

Sustainability is the achievement of:

- Providing a quality built environment at minimum cost.
- Economic growth, environmental protection and social progress all at the same time.
- Development that meets the needs of the present without compromising the ability for further generations to meet their own needs.
- Minimising the energy and water needed to construct and operate buildings and making best use of existing buildings by refurbishing wherever possible.
- Sustainability in the built project/environment.
- Designing and constructing for ease of management and maintenance with the minimum of resources.
- Designing and constructing new buildings which can be adapted to different uses.
- Using materials that are environmentally benign.
- Recycling components and materials.
- Minimising waste and pollution.

Plasmor's commitment to sustainability

Sustainability is the greatest challenge facing the architectural, building and building supply industries at the moment.

In the building industry sustainability concentrates on low energy building design, construction using sustainable materials, a built product displaying exemplary energy efficiency and delivering the use of renewable materials. Above all else the built project and its environment must provide sustainability in longevity and economy. In other words, be built to last.

The inherent benefits and economies of concrete block construction can combat the effects of global warming by lowering the energy consumption of buildings and therefore carbon emissions, resulting in a reduction of energy costs and minimising the need for future air-conditioning. Concrete block construction can provide sustainable, energy efficient homes by offering both low-rise and multi-storey solutions.

For sustainable structures that perform now and in the future, designers, architects and builders should harness the benefits of concrete block construction.

Concrete block construction is the premium building material that satisfies such a demanding criteria. In the clamour to provide huge volumes of new and affordable homes are we overlooking the importance of longevity and legacy in our built environment? Delivering the highest number of houses at minimum cost with low regard for building life expectancy questions the future-proofing of sustainable neighbourhoods and communities. Traditional building methods not 'pre-fabs' are the sensible route to providing sustainable buildings, communities and a heritage to be compared to that left to us by our forefathers.

Concrete block is one of the most sustainable building materials in terms of both energy consumed during manufacture and its inherent thermal mass properties in use. The thermal capacity of concrete block structures can be utilised to improve the energy efficiency of buildings. Compared to air-conditioning, active Fabric Energy Storage (FES) reduces carbon dioxide emissions by up to 50%. Using FES to reduce or remove air-conditioning also makes sound long-term financial sense, amounting massive savings over a buildings' lifetime. Conversely, it is anticipated that lightweight 'pre-fab' houses will require air-conditioning retro fitting within a few years. Furthermore, traditionally built houses have proven abilities to extend maintenance cycles and reduce whole life costs.

Economical, reliable, consistent and efficient methods of concrete block construction can deliver cost effective structures, optimise sustainable performance, improve energy efficiency and reduce construction time. Plasmor remain at the forefront of innovative sustainable construction materials with concrete blocks at the forefront of sustainable, long-lasting construction.

Plasmor's sustainability credentials

- A high proportion of our raw material is an industrial bi-product that substitutes the extraction of primary aggregates such as stone, sand, gravel and granite.
- Where primary aggregate is extracted we use a significant amount of clay which we expand to 5 times its original volume. This represents a significant environmental advantage over alternative virgin quarried aggregates such as stone, sand, gravel and granite. This is because for one tonne of clay quarried, once expanded in Plasmor's unique expanded clay plant, the volume multiplies to five times. With all the other quarried aggregates, one tonne quarried equals one tonne used thus 80% less material is quarried.
- Plasmor maximise the use of recycled replacement/substitute cement.
- All Plasmor production plants are strategically close to traditional sources of raw materials thus precluding long road transfer of materials.
- Where raw material journeys of 40+ miles are necessary, wherever possible, rail and inland waterway transport is utilised.
- All Plasmor production plants and distribution depots are strategically situated close to densely populated conurbations which constitute the key markets for our products thus minimising LGV lorry movements.
- Plasmor is committed to the continuing use of rail transport. 18% of Plasmor finished product is delivered daily by rail transport thus reducing LGV lorry movements by up to 50 per day.
- Plasmor is committed to the continual investment in and modernisation of its LGV fleet. All replacement vehicles are specified and equipped to the latest European Emissions Standards.

- All waste/reject materials derived from the production process are recycled and re-used in production with nil waste to landfill.
- The use of alternative fuels including waste and re-cycled materials is maximised in the generation of heat and power for the Company's consumption.
- Throughout the Company, all energy generation and product curing equipment is being systematically replaced or modernised with the very latest sophisticated energy efficient equipment.
- Plasmor products are presented to market with minimal packaging. All packaging materials are biodegradable or recyclable.
- Continual research and development is undertaken into new product development, the use of environmentally benign materials, energy conservation and the use of alternative waste and recycled fuel sources.
- New product development is providing lighter products with resulting larger transport payloads and therefore reduced environmental impact by vehicle movements.
- The Company uses recycled paper for all stationary and business forms. All Company literature is printed Elemental Chlorine Free on sheet from sustainable sources.
- Supply chain management secures raw materials and equipment from environmentally sensitive suppliers and from renewable sources where possible. We aim to source materials from suppliers with the most production and energy efficient processes and sustainability credentials.
- In the interest of good neighbourliness and Health and Safety best practice, the Company is committed to monitoring and maximising air and noise suppression.
- Compliance with The Code for Sustainable Homes is easily achieved with Plasmor products.
- Plasmor aggregate concrete blocks achieve high Green Guide ratings for walls and floors.
- Plasmor concrete blocks have excellent fire-resistant properties.
- Concrete blocks cannot be attacked and weakened by vermin and insects and are not adversely affected by water such as flood water or water leaks.

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J A Slater
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 Plasmor Limited 2024