



## Taking the LEED®

(Leadership in Energy & Environmental Design)

The Flowcrete Group manufactures sustainable flooring materials that reflect our Group-wide attitude toward environmental protection. Through the LEED (Leadership in Energy & Environmental Design) Green Building Rating System™ Flowcrete endeavours to contribute to high performance Green Buildings and lead the field in our industry by making sustainability a corporate priority. The following information is provided to demonstrate how our materials can assist specification professionals in qualifying for LEED credits.

These credits apply to both LEED-NC and LEED-EB unless otherwise noted.

### Materials and Resources

#### Building Reuse (MR Credit 1.1 & 1.2 – up to 2 points)

Those seeking certification should maintain at least 75% of the existing building structure and shell in order to extend the life cycle of existing building stock and conserve resources as well as to reduce environmental impacts of new builds as they relate to materials, manufacture and transport.

Flowcrete can help to renovate or rehabilitate existing buildings using a number of reparation systems that restore failed or damaged surfaces, thus reducing the need for new facilities or replacement flooring. In addition, our Isowarm Under Floor Heating system can be used to provide greater efficiency and energy savings in heating an existing property.

#### Construction Materials Waste Management (MR Credit 2.1 & 2.2 – up to 2 points)

In order to reduce the quantity of waste sent to landfill sites, those seeking certification should implement a construction waste management plan and recycle or salvage a minimum of 50% (1 point) or 75% (2 points) of all waste generated.

Flowcrete continues to closely monitor waste streams with the ultimate aim of recycling or re-using all components used within our processes. Flowcrete offers UK based flooring applicators the use of reusable IBC's to enable the supply of goods to site in bulk and lessen the quantity of construction waste material being sent to landfill.

#### Materials Reuse (MR Credit 3.1 & 3.2 – up to 2 points)

Those seeking LEED accreditation should use salvaged, refurbished, or reused materials such that the sum of these materials constitutes at least 5% based on cost (1 point), of the total value of materials on the project. MR Credit 3.2 is an additional 5% beyond MR Credit 3.1 - 10% total based on cost (2 points).

Flowcrete has developed a range of flooring systems that use recycled and reclaimed materials as aggregates within the resin mix – for example, recycled glass aggregates are one of the main components used in our Mondéco Seamless Terrazzo range. Similarly, we have introduced a number of materials from heavy industry waste streams, including anhydrite, pulverised fuel ash and ground granulated blast furnace slag, into our manufacturing processes.

#### Regional Materials (MR Credit 5.1 & 5.2 – up to 2 points)

A minimum of 10% of construction material costs must be extracted or harvested and/or manufactured within 500 miles (as the crow flies) of the project site, thereby supporting the use of indigenous resources and reducing the environmental impacts resulting from transportation. This does not include on-site assembly, erection or installation of finished components.

Flowcrete spans the globe with manufacturing plants located in Europe, the Americas, Asia and Africa as well as toll manufacturing facilities in various locations worldwide. Flowcrete's de-centralised manufacturing strategy ensures that, more often than not, we will be located within the 500 mile radius as specified by LEED. For more information on Flowcrete offices worldwide visit [www.flowcrete.com](http://www.flowcrete.com)



## Indoor Environmental Quality

### Low Emitting Materials - Paints and Coatings (EQ Credit 4.2 - 1 point)

Paints and coatings used within the interior of a building seeking certification should not exceed LEED limits for Volatile Organic Compounds (VOC's) so as to reduce the quantity of indoor air contaminants that are odorous, irritating, and/or harmful to the comfort and well-being of installers and occupants.

Flowcrete manufactures a large number of floor paints and specialist resin floor coatings that are either extremely low in VOC content or completely VOC-free, meeting the relevant LEED requirements for low emitting materials and air quality.

### Controllability of Systems - Thermal (EQ Credit 6.2 - 1 point)

Those looking to promote the productivity, comfort and well being of all building occupants must provide a high level of thermal, ventilation and lighting system control to individual occupants or specific groups in multi-occupancy spaces (i.e. classrooms or conference areas) In addition, specification professionals should provide adjustable airflow, temperature and lighting controls for at least 50% of the occupants in non-perimeter, regularly occupied areas.

Flowcrete offers a holistic underfloor heating system, Isowarm, which delivers on LEED's thermal comfort control requirements through the use of individual thermostats operating within defined areas of single or multi-occupancy buildings. In addition, Isowarm Under Floor Heating delivers economic, environmental and efficiency savings that work in tandem to enhance the well-being of building occupants and residents.

### Thermal Comfort Design and Verification (EQ Credit 7.1 & 7.2 - up to 2 points)

LEED requires that buildings provide a thermally comfortable environment that supports the productivity and well-being of all occupants through the design and implementation of Heating, Ventilation and Air Conditioning (HVAC) systems and Building Envelope that comply with ASHRAE Standard 55-2004 (Thermal Comfort Conditions for Human Occupancy). In addition, the continual evaluation and assesment of the building's thermal comfort is required within 6-18 months after occupancy from which no more than 20% can highlight dissatisfaction.

Flowcrete offers a complimentary thermal design service carried out by our Isowarm Under Floor Heating Design Team, which can assist specification professionals in ensuring the overall thermal integrity of a building or development. Unlike conventional heating systems such as radiators, air conditioning systems or even fireplaces, our Isowarm system provides efficiency and economy savings delivering invisible, controllable heat where it is needed the most – from the ground upwards – ensuring the thermal comfort of building occupants and residents.

### Advanced Acoustical Performance (EQ Credit 9 - up to 2 points)

\*LEED for Schools only

Minimum acoustical performance is required as a prerequisite to those seeking LEED points from EQ Credit 9. In particular, design classrooms and other core workspaces within a school building should meet the Reverberation Time (RT) requirements of ANSI Standard S12.60- 2002 (Annexes B-D 40 dBA; 35 dBA). In addition, the specified learning spaces must meet the Sound Transmission Class (STC) requirements of at least 35.

Flowcrete offers an underfloor acoustic insulation system, Isocrete Acoustic-K, which has been designed to enhance sound resistance within multipurpose and multi-occupancy buildings, particularly within school environments, where our acoustic control system is able to eliminate the adverse effects on learning brought about by poor acoustic standards.

The Flowcrete Group is committed to developing our operations in a sustainable manner and takes a holistic approach to producing environmentally friendly flooring materials. This means rather than just focussing on environmental issues, all decision making considers the environmental, social and economic impact of our materials, manufacture and supply in order to improve our Company's contribution to addressing the important issues our society faces today.

We recognise that by adopting a sustainable approach across all of our operations throughout the world is the only way that we can truly improve our Company's contribution to a sustainable world. By doing so, Flowcrete's contribution to environmental protection, social advancement and economic prosperity will be significant and tangible.

For more information visit us on the web at [www.flowcrete.com](http://www.flowcrete.com)