

santamargherita
THE ORIGINAL ITALIAN SURFACE [®]

THE ORIGINAL ITALIAN ECO SURFACE

LEED PROTOCOL

SANTAMARGHERITA & LEED®

GUIDELINES FOR THE APPLICATION OF USGBC PARAMETERS TO THE SANTAMARGHERITA® CONGLOMERATES

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Constructed by:

santamargherita
THE ORIGINAL ITALIAN SURFACE



Green Building Council Italia

In collaboration with:



HABITECH - Trentino Technological District



INTRODUCTION

Santamargherita has been committed for some time to the environmental sustainability front, to the safety of the goods it produces, and to the health of ambients and persons at which/whom they are aimed. The NSF, Greenguard and Greenguard Children & School certifications are some of the great achievements that our company has already obtained in this direction.

LEED (Leadership in Energy and Environmental Design), one of the buildings certification systems most widespread on the construction market, is for Santamargherita a further step ahead in this sense: the interest shown internationally by designers and developers in this certification model is considerable, and one can note a continuous increase of national bodies which, taking an example from the USA models, are activating to favor the implementation and diffusion of LEED certification on a national level.

The LEED Santamargherita Protocol was created for a double purpose: on one hand, make our company and our products increasingly competitive, able to draw advantage from the characteristics of excellence and sustainability which have always marked out our product internationally; on the other hand, to provide professionals, companies, firms and private customers, a manner of understanding the LEED parameters. currently in use, and which can be applied with positive results on buildings and projects where Santamagherita products are used.

THE LEED CERTIFICATION

The LEED Certification Method

The LEED certification was developed and introduced in the USA in 1999 by the USA Green Building Council, the organization which unites the representatives of the construction and research sectors and of the North American government entities, with the aim of supplying all the building sectors with a useful tool for certifying building sustainability.

The certification evaluates and authenticates the environmental, social and economic sustainability, through a flexible system which specifies differentiated formulation for the different types of buildings, while maintaining a coherent basic set-up: LEED New Construction (NC), Existing Buildings (EB), Commercial Interiors (CI), Core & Shell (CS), Homes, Neighborhood Development. In particular, LEED-NC concerns the construction of new buildings and the relevant restructuring of existing structures.

The certification specifies the attribution of a points score to the building recognized according to its verified conformity to the different LEED pre-requisites and, ramified in 6 thematic areas:

1. Sustainable Sites
2. Water Efficiency
3. Energy and Atmosphere
4. Material and Resources
5. Indoor Environmental Quality
6. Innovation in Design

The final score is obtained by adding the scores obtained inside every thematic area and determines the different level of certification obtained: Certification **Certified, Silver, Gold** and **Platinum**.

LEED NC Credits Structure

The structure of the LEED NC credits is ramified in 6 thematic areas. The acronyms which accompany the credits identify various aspects, including:

THEMATIC REFERENCE AREA

- **SS** = Sustainable Sites
- **WE** = Water Efficiency
- **EA** = Energy and Atmosphere
- **MR** = Material and Resources
- **EQ** = Indoor Environmental Quality
- **ID** = Innovation in Design

Distinction between **PRE-REQUISITE** (binding **PR**) and **CREDIT (C)**

CLASSIFICATION of the pre-requirement/credit (number and title)

SCORE attributed according to the conformity to the credit

THE GUIDELINE

The objectives

During recent years, the LEED certification has appeared on the international panorama, reaping success as a construction sustainability certification system. The ever growing number of members of the US Green Building Council, which reaches 15,700 units, underscores the great awareness of the sector's operators as concerns the subject of eco-sustainability. According to official data issued by UGSBC, there are more than 1,500 LEED certified projects and almost 12,000 projects for which the certification procedure has already been started.

Following the widespread nature of this rating system, it has become key for designers and architects to have information on "LEED compliant products", i.e. products with particular eco-sustainable characteristics available on the international market.

In the light of the above, the "*Protocol LEED Santa Margherita*" provides interested professionals a selection of the parameters for which agglomerate material can perform well. The purpose of this manual is to provide a LEED system guideline, enabling designers or our company's direct customers to find a clear and immediate answer to the technical requests increasingly emerging at the project stage.

LEED AND SANTAMARGHERITA

As we already said, the LEED certification is **the certification of a building and not of a product**. Therefore, LEED criteria always refer to the **building system** and not to the single materials used in the project. In his case, the Santamargherita engineered stone cannot on its own guarantee reaching a score, but it can contribute to conforming to the LEED requirements. The threshold indicated in the credits therefore refers to the parameter to which the building must conform to assign the relevant score.

THE LEED CREDITS

From an analysis of the volume “LEED New Construction & Major Renovation 2.2”, thanks to cooperation between Santamargherita and Habitec - Distretto Tecnologico Trentino, the credits whereby the agglomerate product by virtue of its technical-structural characteristics, can contribute to reaching the score have been selected. Santamargherita has also checked the conformity of what stated in this file with the credit structure as per LEEDS 2009 manual.

The credits presented in the following pages are catalogued according to the thematic reference area, & Resources, Sustainable Sites, Energy & Atmosphere, Indoor Environmental Quality, Innovation in Design).

For each of the selected credits, a description of the following is provided: **Objectives, Requirements, definitions** of the technical terms, reference to a possible **Reference standard**, the **interpretation key** for reading and the **available technical-scientific documentation**, The credits illustrated in the following pages are:

MATERIALS AND RESOURCES

Credit MR 2.1: Construction waste management (50% recycled or reused)

Credit MR 2.2: Construction waste management (75% recycled or reused)

Credit MR 4.1: Content of recycled material (10% postconsumer + ½ pre-consumer)

Credit MR 4.2: Content of recycled material 20% (post-consumer + ½ pre-consumer)

Credit MR 5.1: Regional materials 10% extracted, machined, and produced locally

Credit MR 5.2: Regional materials 20% extracted, machined, and produced locally

ENERGY AND ATMOSPHERE

Pre-requirement EA 2: Minimum energetic performance

Credit EA 1: Optimization of energetic performance

INDOOR ENVIRONMENTAL QUALITY

Credit IEQ 3.1: Construction indoor air quality management plan

Credit IEQ 4.3: Low emission materials; flooring systems

INNOVATION IN DESIGN

Credit ID 1.1 - 1.4: Innovation in Design

ADDENDUM

THE ADDED VALUE OF SANTAMARGHERITA FOR SUSTAINABLE BUILDINGS

Credits MR 3.1 and 3.2: Material reuse

Credit IEQ 4.1: Low emission materials: adhesives and sealants

Credit IEQ 4.2: Low emission materials: coats and paints

MATERIALS AND RESOURCES

Credit MR 2.1

CONSTRUCTION WASTE MANAGEMENT

50% recycled or reused during construction

**RESPECT OF THE FOLLOWING CRITERION, REFERRED TO THE BUILDING,
ASSIGNS 1 POINT IN THE LEED SYSTEM.**

OBJECTIVE:

Avoid, that construction or demolition waste (packaging included) are brought to the waste disposal site or to the incinerator. Take the recyclable resources to a new production process and the reusable materials to a suitable site.

REQUIREMENTS:

Recycle and rescue the non hazardous construction or demolition waste (packaging included); draw up a waste recycling plan identifying and highlighting the materials, that shall be taken to the waste disposal site or to the incinerator.

REFERENCE STANDARD:

There is no reference standard to this credit.

INTERPRETATIVE KEY OF THE PARAMETER:

The calculation - on the whole project - can be carried out based on weight and volume, but shall be consistent. To get 1 LEED point the minimum percentage of recycled and recovered materials in the project shall be 50%.

SUPPORTING DOCUMENTATION:

Santamargherita supplies materials packed in wooden bundles, wooden crates and/or cardboards, as per delivery note. These materials can easily be kept separate from the jobsite waste and be reused on site, or in another place, with their same original function, or a different one.

MATERIALS AND RESOURCES

Credit MR 2.2

CONSTRUCTION WASTE MANAGEMENT

75% recycled or reused during construction

**RESPECT OF THE FOLLOWING CRITERION, REFERRED TO THE BUILDING,
ADDS 1 EXTRA POINT TO THE CREDIT MR 2.1 IN THE LEED SYSTEM.**

REQUIREMENTS:

The only difference with Credit MR 2.1 concerns the minimum percentage of recycled or reused materials within the project, that in Credit MR 2.2 shall reach 75% (based upon weight or volume) of the total construction waste (packaging included) used in the project.

Objectives, requirements, interpretative key of the parameter and supporting documentation are as per Credit MR 2.1.

MATERIALS AND RESOURCES

Credit MR 4.1

CONTENT OF RECYCLED MATERIAL

10% (post-consumer + ½ pre-consumer)

**RESPECT OF THE FOLLOWING CRITERION, REFERRED TO THE BUILDING,
ASSIGNS 1 POINT IN THE LEED SYSTEM.**

OBJECTIVE:

Increase demand for building materials containing a component of recycled material thus reducing the impacts caused by the extraction/mining and processing of virgin raw materials.

REQUIREMENTS:

Use construction materials containing a component of recycled material to the extent that the sum of the post-consumption materials is ½ of pre-consumption materials amounts to at least 10% (based on cost) of the total value of the materials used in the project. The value of recycled material (contained in the finished product) shall be determined upon the weight. The part of recycled material (contained in the finished product) shall then be multiplied by the cost of the finished product thus determining the value of the recycled content.

DEFINITIONS:

Post-consumption materials: Waste materials produced by families, or by commercial, industrial and institutional spaces in their role of end-user of the product, which cannot be utilized for their own purpose. Construction or demolition waste is included.

Pre-consumption material: Material dissolved by waste flows during the production process. The reuse of materials coming from reprocessing, regranulation or from general waste of a production process used within the same is excluded.

REFERENCE STANDARD:

The content of recycled material must be defined in conformity with the document of the International Organization for Standardization, ISO 14021 - *Environmental labels and declarations - Self declared environmental claims (Type II environmental labeling)*, www.iso.org

MATERIALS AND RESOURCES

INTERPRETATIVE KEY OF THE PARAMETER:

The Santamargherita agglomerate contributes to reaching the credit if it contains recycled material (calculated as the sum of post-consumption and pre-consumption). **The 10% percentage** of recycled material, which must be reached to receive the points credit referring to MR4.1, **refers to the percentage of recycled material overall present in the building**, but not to individual construction materials used in the project. **Therefore, the Santamargherita agglomerate could contribute to credit MR.4.1 to the extent whereby it contains any percentage of recycled material.**

- **Post-consumption material:** The introduction into the production process of materials originating from the differentiated collections of products at the end of their life e.g. glass container bins, i.e. of demolition waste reintroduced in the production process of the company which generated it or that of another company should be considered as post-consumption material.
- **Pre-consumption material:** these can be considered as pre-consumer: scrap, waste and finished products which, as they cannot be put on the market due to production faults, are introduced into the production cycle provided they were made in a production site differing from that where they are re-utilized (e.g. baked/fired or raw scrap, exhausted lime, non-purified mud and waters to be purified, non purified water, sludge from smoothing and cutting, exhaustion dust, etc.) . Instead, scrap and waste reutilized on the same site which generated them, cannot be considered as pre-consumer.

SUPPORTING DOCUMENTATION:

As requested by the LEED certification, Santamargherita makes available certification of type II based **on the percentages in weight of the pre- and post-consumer material**, and type I certification in support of the above declarations.

REFERENCE RANGES:

The following ranges respond to the criteria specified for the MR 4.1 credit:

- Santamargherita STARDUST
- Santamargherita LEGACY
- Santamargherita SECOND.LIFE

MATERIALS AND RESOURCES

Credit MR 4.2

CONTENT OF RECYCLED MATERIAL

20% (post-consumer + $\frac{1}{2}$ pre-consumer)

**RESPECT OF THE FOLLOWING CRITERION, REFERRED TO THE BUILDING,
ADDS 1 EXTRA POINT TO CREDIT MR 4.1 IN THE LEED SYSTEM.**

REQUIREMENTS:

The only variation compared to credit MR 4.1 concerns the minimum percentage of recycled material obtained from the post-consumer sum and $\frac{1}{2}$ of pre-consumer, which in credit MR 4.2, must reach 20% (based on cost) of the total values of the material used in the **project**.

Instead, the following remain unvaried compared to credit MR 4.1: the objectives, definitions, reference standards, interpretations, formulas for calculating the value of the percentage of the recycled material, the supporting documentation and the reference ranges.

MATERIALS AND RESOURCES

Credit MR 5.1

REGIONAL MATERIALS

10% extracted, processed and produced locally

RESPECT OF THE FOLLOWING CRITERION, REFERRED TO THE BUILDING, ADDS 1 POINT IN THE LEED SYSTEM.

PRELIMINARY NOTE TO THE CORRECT INTERPRETATION OF THE CREDIT MR 5.1:

It is important to emphasize, that the LEED system provides for and imposes that all the captioned phases (extraction, processing and fabrication) take place locally, that means within 500 mile (804,5 km) from the project site. Even if only one of these phases (either extraction, or processing, or fabrication) takes place beyond 500 miles from the project site, the final product is not eligible for this credit.

OBJECTIVE:

Increase demand for construction materials and products which are extracted and processed regionally, thus supporting use of indigenous resources and reducing the impacts **on the environment caused by transport**.

REQUIREMENTS:

Use construction materials and products which were extracted, collected or recovered, and processed within 500 miles (804.5 Km) from the project site up to a minimum amount of 10% (cost based percentage) of the total value of the materials. **If only a fraction of a product/material was extracted, collected, recovered or processed locally, in that case only that percentage (in weight) contributes to the regional value.**

REFERENCE STANDARD:

There is no reference standard for this credit.

INTERPRETATIVE KEY OF THE PARAMETER:

Contrary to what occurs for credits MR 4.1 and 4.2 where a structural characteristic of Santamargherita agglomerate is examined, credits R 5.1 and 5.2 reward the use in the building of local materials and products, which factor is not related to the intrinsic characteristics of the agglomerate product and therefore beyond the producer's control. In particular the credit demands that the construction materials are produced,

extracted/mined and machined within a range of 500 miles (804.5 Km) from the project location.

This means that, for **projects implemented in Europe**, the Santamargherita agglomerate can contribute only if produced with materials extracted /mined and machined within 804.5 Km from the project location, but limited to the amount of raw materials extracted/mined and machined within the same range.

SUPPORTING DOCUMENTATION:

If the location of the project is known, Santamargherita will be able to supply II level documentation regarding the weight percentage of the "regional" materials, limited to those specified in the project itself.

MATERIALS AND RESOURCES

Credit MR 5.2

REGIONAL MATERIALS

20% extracted/mined, processed and fabricated locally

**RESPECT OF THE FOLLOWING CRITERION, REFERRED TO THE BUILDING,
ADDS 1 EXTRA POINT TO CREDIT MR 5.1 IN THE LEED SYSTEM.**

With respect to credit MR 5.1, the following do not change: the definitions, the interpretative key and the supporting documentation the company will be able to provide.

Pre-requirement EA 2 **MINIMUM ENERGETIC PERFORMANCE**

INDISPENSABLE FOR OBTAINING THE LEED CERTIFICATION.

OBJECTIVE:

Define the minimum level of energetic efficiency of the building and its system.

REQUIREMENTS:

The building project must conform:

- To “mandatory provisions” (Part 5.4, 6.4, 7.4, 8.4, 9.4 e 10.4) of Standard ASHRAE/IESNA 90.1-2004;
- To “Prescriptive Requirements (Part 5.5, 6.5, 7.5, and 9.5) or to the “performance requirements” (Part 11) of Standard **ASHRAE/IESNA 90.1-2004**.

REFERENCE STANDARD:

ASHRAE/IESNA: 90.1-2004: Energy Standard for Buildings Except Low- Rise Residential, and Informative.

INTERPRETATIVE KEY OF THE PARAMETER:

Prerequisite EA-2 and Credit EAI are the two criteria which fix the LEED parameters for the building's energetic efficiency. Prerequisite EA-2 specifies that the building complies with Standard ASHRAE/IESNA 90.1-2004 and in particular with the “mandatory provisions”, with the “prescriptive requirements” or with the’ “Energy Cost Budget Method performance requirements”.

As Santamargherita materials show low thermal conductivity, and contain a small percentage of resin - insulating material - the Santamargherita tiles have insulating power and could therefore contribute to the building's energy cost saving.

SUPPORTING DOCUMENTATION:

On January 2009 the product standard EN15285:2008 “Agglomerated stone - modular tiles for flooring and stairs (internal and external)” has come into force: the standad prescribes for each agglomerate product used for flooring or stairs a written declaration of the technical characteristics.

Santamargherita shall provide, for each material sold as tiles, the CE certification, containing the technical characteristics of the product: among them the thermal conductivity shall be mentioned.

Credit EA I

OPTIMIZATION OF THE ENERGETIC PERFORMANCE

**RESPECT OF THE FOLLOWING CRITERION, REFERRED TO THE BUILDING,
ADDS 1 FROM 1 TO 19 POINTS IN THE LEED SYSTEM.**

OBJECTIVE:

Reach energetic performance levels higher than the reference points indicated in the standard in order to minimize the environmental and ecological impacts associated with the excessive use of energy.

REQUIREMENTS:

The building project must conform:

- To the “mandatory provisions” (Part 5.4, 6.4, 7.4, 8.4, 9.4 e 10.4) of Standard ASHRAE/IESNA 90.1-2004;
- To “Prescriptive Requirements” (Part 5.5, 6.5, 7.5, and 9.5) or of the “performance requirements” (Part 11) of the Standard **ASHRAE/IESNA 90.1-2004**.

REFERENCE STANDARD:

ASHRAE/IESNA: 90.1-2004: Energy Standard for Buildings Except Low- Rise Residential, and Informative Appendix G- Performance Rating Method.

INTERPRETATIVE KEY OF THE PARAMETER:

Pre-requirement EA-2 and Credit EA1 are the two criteria which fix the LEED parameters for the building’s energetic efficiency. Pre-requirement EA-2 requires that the building conforms to Standard ASHRAE/IESNA 90.1-2004 and in particular to the “mandatory provisions”, to the “prescriptive requirements” or to the “Energy Cost Budget Method performance requirements”.

As Santamargherita materials show low thermal conductivity, and contain a small percentage of resin - insulating material - the Santamargherita tiles have insulating power and could therefore contribute to the building’s energy cost saving.

SUPPORTING DOCUMENTATION:

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Santamargherita shall provide, for each material sold as tiles, the CE certification, containing the technical characteristics of the product: among them the thermal conductivity shall be mentioned.

INDOOR ENVIRONMENTAL QUALITY

Credit IEQ 3.1

CONSTRUCTION INDOOR AIR QUALITY MANAGEMENT PLAN

Maximum indoor air contaminant concentration

**RESPECT OF THE FOLLOWING CRITERION, REFERRED TO THE BUILDING,
ADDS 1 POINT IN THE LEED SYSTEM.**

OBJECTIVE:

Reduce indoor air quality (IAQ) problems resulting from construction or renovation and promote the comfort and well-being of construction workers and building occupants.

REQUIREMENTS:

During construction, meet or exceed the recommended control measures of the Sheet Metal and Air Conditioning National Contractors Association (SMACNA) IAQ Guidelines for Occupied Buildings Under Construction, 2nd edition 2007, ANSI/SMACNA 008-2008 (Chapter 3).

INTERPRETATIVE KEY OF THE PARAMETER:

In the application of this credit, introduced for the first time by LEED 2009, procedures and materials reducing IAQ problems are taken into consideration: they include Santamargherita agglomerate products, too. Our company has checked the conformity of its products with the requirements of LEED 2009.

REFERENCE STANDARD:

ANSI/SMACNA 008-2008 (Chapter 3).

SUPPORTING DOCUMENTATION:

The Greenguard Children & School documentation was accepted as level I documentation valid for conferring LEED points to the buildings.

REFERENCE RANGES:

Santamargherita obtained from GEI the Greenguard and Greenguard Children & School certification on ALL its agglomerates containing marble and quartz.

INDOOR ENVIRONMENTAL QUALITY

Credit IEQ 4.3

LOW EMISSION MATERIALS

Flooring systems

**RESPECT OF THE FOLLOWING CRITERION, REFERRED TO THE BUILDING,
ADDS 1 POINT IN THE LEED SYSTEM.**

OBJECTIVE:

Reduce the quantity of indoor air contaminants which are smelly, irritating and harmful for the comfort and wellbeing of the installers and occupants.

REQUIREMENTS:

All the floorings installed in the building must conform with the tests and product requirements as determined by the California Department of Health Services Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers, 2004 addenda included.

DEFINITIONS:

VOC (Volatile Organic Compound) = any volatile compound of carbon, excluding the following compounds: methane, carbon monoxide, carbon dioxide, carbonic acid, metal carbides or carbonates, ammonium carbonate, and exempted compounds (from carbon).

INTERPRETATIVE KEY OF THE PARAMETER:

In the application of this credit, introduced for the first time by LEED 2009, floor lining materials are taken into consideration: they include Santamargherita agglomerate tiles, too. Our company has checked the conformity of its products with the requirements of LEED 2009.

REFERENCE STANDARD:

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT (SCAQMD) #1133

<http://www.aqmd.gov/rules/reg/reg11/r113.pdf>

SUPPORTING DOCUMENTATION:

The Greenguard Children & School documentation was accepted as level I documentation valid for conferring LEED points to the buildings.

REFERENCE RANGES:

Santamargherita obtained from GEI the Greenguard and Greenguard Children & School certification on ALL its agglomerates containing marble and quartz.

INNOVATION IN DESIGN

Credit ID 1.1 - 1.4

INNOVATION IN DESIGN

Flooring systems

**UP TO A MAXIMUM TOTAL OF 4 POINTS ARE RECOGNISED
FOR INNOVATION IN DESIGN CREDITS.**

OBJECTIVE:

Give constructors and architects the opportunity to receive extra points for exceptional performances, which exceed the requirements fixed by the LEED NC evaluation system and/or for innovative performances in Green Building categories not included in the LEED NC system.

REQUIREMENTS:

Among the innovative strategies which can contribute to this credit, Santamargherita can contribute with strategies not specified by the LEED Rating System, but which represent **innovative performances** for the Green Building sector. We are referring to the **use of products which** make it possible to increase quantitative performances in terms of environmental benefits, which can be applied to the whole project **and which can therefore be used in other projects too.**

INTERPRETATIVE KEY OF THE PARAMETER:

Due to their particular characteristics (e.g. hygienic, anti-bacteria, innovative composition of the product) some Santamargherita agglomerates, can contribute to obtain the score for the ID credit.

In this light, NSF certified products (characterized by particularly high hygienic performances) and other products specifically studied to be almost entirely produced (>90%) with **pre- or –post consumption** material.

SUPPORTING DOCUMENTATION:

Santamargherita may, time by time, supply to the designer any level II certification concerning the characteristics of the product in question, useful for the ID Credit for the building where use of the product is foreseen.

The added value of Santamargherita for sustainable buildings

Santamargherita's engagement for a more sustainable building does not stop at the LEEDS credits, that can immediately and directly be attributed to the project thanks to its agglomerates.

In fact, **Santamargherita's agglomerates** show **characteristics**, which make their use **suggested** for projects not only aiming at LEED qualification, but aiming at using materials, that need as less treatments as possible and can, at the end of the building's life, be reused.

Santamargherita's agglomerate represents an **added value** in the chapters "Materials and Resources" and "Indoor Environmental Quality", even though it does not immediately and directly contributes to LEED points as New Construction and Major Renovations.

Credits MR 3.1 and 3.2

REUSE OF MATERIALS

OBJECTIVE:

Reuse building materials and products in order to reduce the demand of raw materials and the production of waste, thus decreasing the impact on environment connected with the extraction and processing of virgin resources.

SANTAMARGHERITA'S ADDED VALUE:

The agglomerate is not a preexisting building material, neither it comes from reuse. Nevertheless, at the end of its life (as flooring, covering of counter), it can still be reused, as its technical and physical characteristics remain unchanged. This way, the Santamargherita product, after adjustment (e.g. repolishing or cut) can be reused as countertop, flooring, wall covering, or cut into mosaic, contributing thus to get **the credit M3**.

It is important to stress, that the Santamargherita product does not contribute to the attribution of this credit when it is used for the first time, but only if reused.

ADDENDUM

Credit IEQ 4.1

LOW EMISSION MATERIALS: ADHESIVES AND SEALS

OBJECTIVE:

Reduce the quantity of indoor contaminants that are odorous, irritating and/or harmful to the comfort and well being of installers and occupants.

SANTAMARGHERITA'S ADDED VALUE:

Being an agglomerate manufacturer, Santamargherita does not produce adhesives or seals. Upon request, Santamargherita can supply the contact details of adhesives and seals manufacturers, whose products comply with LEED requirements.

Credit IEQ 4.2

LOW EMISSION MATERIALS: COATS AND PAINTS

OBJECTIVE:

Reduce the quantity of indoor contaminants that are odorous, irritating and/or harmful to the comfort and well being of installers and occupants.

SANTAMARGHERITA'S ADDED VALUE:

Santamargherita's products do not need any surface treatment: for this reason, the use of Santamargherita's products help in decreasing the quantity of chemicals used for indoor finishes.

LEED CREDITS TABLE - SANTAMARGHERITA RANGES

| Credit Prerequisite | Description | Aggosimplex | Marghestone | Essenza | Trafficstone Trafficstone Wave | Legacy | Lapistone | Stardust | Second.Life |
|---------------------|---|-------------|-------------|---------|--------------------------------|--------|-----------|----------|-------------|
| Cr MR2.1 | Construction waste management (50% recycled or reused) | ● | ● | ● | ● | ● | ● | ● | ● |
| Cr MR2.2 | Construction waste management (75% recycled or reused) | ● | ● | ● | ● | ● | ● | ● | ● |
| Cr MR4.1 | Content of recycled material (10% post-consumer + 1/2 pre-consumer) | - | - | - | - | ● | - | ● | ● |
| Cr MR4.2 | Content of recycled material 20% (post-consumer + 1/2 pre-consumer) | - | - | - | - | ● | - | ● | ● |
| Cr MR5.1 * | Regional materials 10% extracted, machined, and produced locally | ● * | ● * | ● * | ● * | ● * | ● * | ● * | ● * |
| Cr MR5.2 * | Regional materials 20% extracted, machined, and produced locally | ● * | ● * | ● * | ● * | ● * | ● * | ● * | ● * |
| Pr EA2 | Minimum energetic performance | ● ** | ● ** | ● ** | ● ** | ● ** | ● ** | ● ** | ● ** |
| Cr EA1 | Optimization of energetic performance | ● ** | ● ** | ● ** | ● ** | ● ** | ● ** | ● ** | ● ** |
| Cr IEQ.4.3 | Low emission materials; flooring systems | ● | ● | ● | ● | ● | ● | ● | ● |
| Cr ID 1.1 - 1.4 | Innovation in Design | ● | ● | ● | ● | ● | ● | ● | ● |
| Cr MR 3.1 e 3.2 | Material reuse | ● | ● | ● | ● | ● | ● | ● | ● |
| Cr IEQ 4.1 ** | Low emission materials: adhesives and sealants | ● *** | ● *** | ● *** | ● *** | ● *** | ● *** | ● *** | ● *** |
| Cr IEQ 4.2 ** | Low emission materials: coats and paints | ● *** | ● *** | ● *** | ● *** | ● *** | ● *** | ● *** | ● *** |

* Depending on the location of the project, cfr. Santamargherita & LEED, MR 5.1

** Prerequisite and credit valid only for products for flooring and wall

*** Credits related indirectly to Santamargherita products, cfr. Santamargherita & LEED, Appendice, IEQ 4.1 e 4.2



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