# MAPPING REPORT

# **NASCO STONE + TILE**

# SUMMARY

- MAPPING REPORT OF PRODUCTS/SERVICES COMPARED TO LEED'S STANDARDS
- 2. NASCO STONE + TILE FOR SUSTAINABILITY
- 3. ANALYZED NASCO STONE + TILE PRODUCTS: NST QUARTZ and NST MARBLE series
- 4. SYNOPTIC CHART OF NASCO STONE + TILE PRODUCTS: HOW THEY CAN CONTRIBUTE TO PREREQUISITES AND LEED CREDITS.
- 5. CONTRIBUTION MATRIX

## MAPPING REPORT OF PRODUCTS/SERVICES COMPARED TO LEED'S STANDARDS

Greenmap is a program of Habitech, technological district of Trentino, S.c.a.r.l., addressed to the system of industry, manufacturing and services, that perceives sustainability as an added value for companies and supports the orientation towards innovation of his customers. Among the activities of Greenmap, the mapping service is important because it allows to recognize the features of sustainability of the analyzed product or service. Moreover, through the mapping service, it is possible to guarantee the compliance of products or services to the most recognized building rating systems as, for example, LEED or BREAM.

This mapping has being created in compliance with the LEED certification system, a system for the certification of the sustainability of buildings which evaluates, for example, efficiency of energy, water consumption, location, materials and resources for the construction, healthiness of air and thermal comfort. It is important to be able to demonstrate that the materials used to construct the building are in compliance with the parameters.

#### Introduction

Leed's certification is awarded to the building itself and not the single building material, but each product contribution to the rating is relevant for obtaining the final evaluation. All the products involved in the project can contribute to the accomplishment of the credits, provided that they are in compliance with the requirements.

#### Procedures of intervention

Habitech described to the company Nasco Stone + Tiles LEED's standards and the necessary requirements to the analyzed range of products for obtaining LEED credits. After that, a depth study of the products has been made, realizing an analysis of the compliance of the products with the LEED requirements. Afterward, they studied potential actions that allow the company to obtain the requirements connected with the identified credits.

#### Reference evaluation

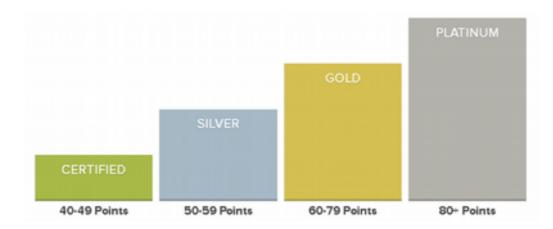
The mapping of Nasco Stone + Tile products has been created according to the requirements identified in the textbooks LEED Reference Guide for Green Building Design and Construction listed below:

LEED BD+C V4 - Building Design and Construction, Valid for:

- ✓ NEW CONSTRUCTION & MAJOR RENOVATION
- ✓ CORE & SHELL
- ✓ SCHOOLS
- ✓ RETAIL
- ✓ HOSPITALITY
- ✓ DATA CENTERS
- ✓ HEALTHCARE



The building under certification has to satisfy all the requested prerequisites, being each of them compulsory for the Leed rating achievement. The final rating is the sum of the credits obtained within every single thematic area. It determines the different level of certification obtained: Certification (from 40 to 49 points), Silver (from 50 to 59 points), Gold (from 60 to 79 points), Platinum (80 points or more).



# CHECKLIST LEED® V4 BD+C VALID FOR: NEW CONSTRUCTION AND MAJOR RENOVATION, CORE AND SHELL, DATA CENTERS, WAREHOUSE, DISTRIBUTION CENTERS, HOSPITALITY, SCHOOLS, HEALTHCARE.

Prerequisites and credits on which the products NASCO STONE + TILE can contribute are underlined in the schedule.

IP	PREREQ. FOR HOSPITALS	INTEGRATIVE PROCESS PLANNING AND DESIGN  MAXIMIZE OPPORTUNITIES FOR INTEGRATED, COST-EFFECTIVE ADOPTION OF GREEN DESIGN AND CONSTRUCTION STRATEGIES, EMPHASIZING HUMAN HEALTH AS A FUNDAMENTAL EVALUATIVE CRITERION FOR BUILDING DESIGN, CONSTRUCTION AND OPERATIONAL STRATEGIES. UTILIZE INNOVATIVE APPROACHES AND TECHNIQUES FOR GREEN DESIGN AND CONSTRUCTION.  INTEGRATIVE PROCESS PLANNING AND DESIGN  MAXIMIZE TO SUPPORT HIGH-PERFORMANCE, COST-EFFECTIVE PROJECT OUTCOMES THROUGH AN EARLY ANALYSIS OF THE INTERRELATIONSHIPS AMONG SYSTEMS.			
IP	CREDIT				
	OCATION AND TRANSPORTATION 16				
	CREDIT	LEED FOR NEIGHBORHOOD DEVELOPMENT LOCATION	16		
	CREDIT	Sensitive Land Protection	1		
	CREDIT	HIGH PRIORITY SITE	2		
	CREDIT	Surrounding Density and Diverse Uses	5		
	CREDIT	Access to Quality Transit	5		
	CREDIT	BICYCLE FACILITIES	1		
	CREDIT	REDUCED PARKING FOOTPRINT	1		
	CREDIT	GREEN VEHICLES	1		
			10		
	PREREQ	CONSTRUCTION ACTIVITY POLLUTION PREVENTION	Required		
	CREDIT	SITE ASSESSMENT	1		
	CREDIT	SITE DEVELOPMENT - PROTECT OR RESTORE HABITAT	2		
	CREDIT	OPEN SPACE	1		
	CREDIT	Rainwater Management	3		
	CREDIT	HEAT ISLAND REDUCTION	2		
	CREDIT	LIGHT POLLUTION REDUCTION	1		
WATER	EFFICIENCY		11		
	Prerq	Outdoor Water Use Reduction	Required		
	PRERQ	Indoor Water Use Reduction	Required		
	PRERQ	BUILDING-LEVEL WATER METERING	Required		

	CREDIT	Outdoor Water Use Reduction	2
	CREDIT	Indoor Water Use Reduction	6
	CREDIT	Cooling Tower Water Use	2
	CREDIT	Water Metering	1
ENERG	AND ATMO	SPHERE	33
	PREREQ	Fundamental Commissioning and Verification	Required
	PREREQ	MINIMUM ENERGY PERFORMANCE	Required
	PREREQ	BUILDING-LEVEL ENERGY METERING	Required
	PREREQ	FUNDAMENTAL REFRIGERANT MANAGEMENT	Required
EAc1	CREDIT	ENHANCED COMMISSIONING TO FURTHER SUPPORT THE DESIGN, CONSTRUCTION, AND EVENTUAL OPERATION OF A PROJECT THAT MEETS THE OWNER'S PROJECT REQUIREMENTS FOR ENERGY, WATER, INDOOR ENVIRONMENTAL QUALITY, AND DURABILITY.	€
	CREDIT	OPTIMIZE ENERGY PERFORMANCE	18
	CREDIT	Advanced Energy Metering	1
	CREDIT	Demand Response	2
	CREDIT	RENEWABLE ENERGY PRODUCTION	3
	CREDIT	Enhanced Refrigerant Management	1
	CREDIT	Green Power and Carbon Offsets	2
Materi	ALS AND RE	SOURCES	13
	Prereq	STORAGE AND COLLECTION OF RECYCLABLES	Req uired
MRp2	Prereq	CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT PLANNING  TO REDUCE CONSTRUCTION AND DEMOLITION WASTE DISPOSED OF IN LANDFILLS AND INCINERATION FACILITIES BY RECOVERING, REUSING, AND RECYCLING MATERIALS.  DEVELOP AND IMPLEMENT A CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT PLAN	Requi red
MRc1	CREDIT	BUILDING LIFE-CYCLE IMPACT REDUCTION  TO ENCOURAGE ADAPTIVE REUSE AND OPTIMIZE THE ENVIRONMENTAL PERFORMANCE OF PRODUCTS AND MATERIALS.  DEMONSTRATE REDUCED ENVIRONMENTAL EFFECTS DURING INITIAL PROJECT DECISION-MAKING BY REUSING EXISTING BUILDING RESOURCES OR DEMONSTRATING A REDUCTION IN MATERIALS USE THROUGH LIFE-CYCLE ASSESSMENT	5
	Credit	Building Product Disclosure and Optimization - Environmental Product Declarations	2
MRc3	CREDIT	BUILDING PRODUCT DISCLOSURE AND OPTIMIZATION - SOURCING OF RAW MATERIALS  TO ENCOURAGE THE USE OF PRODUCTS AND MATERIALS FOR WHICH LIFE-CYCLE INFORMATION IS AVAILABLE AND THAT HAVE ENVIRONMENTALLY, ECONOMICALLY, AND SOCIALLY PREFERABLE LIFE-CYCLE IMPACTS. TO REWARD PROJECT TEAMS FOR SELECTING PRODUCTS VERIFIED TO HAVE BEEN EXTRACTED OR SOURCED IN A RESPONSIBLE MANNER	
MRc4	CREDIT	BUILDING PRODUCT DISCLOSURE AND OPTIMIZATION - MATERIAL INGREDIENTS  TO ENCOURAGE THE USE OF PRODUCTS AND MATERIALS FOR WHICH LIFE-CYCLE INFORMATION IS AVAILABLE AND THAT HAVE	2

		ENVIRONMENTALLY, ECONOMICALLY, AND SOCIALLY PREFERABLE LIFE-CYCLE IMPACTS. TO REWARD PROJECT TEAMS FOR SELECTING PRODUCTS FOR WHICH THE CHEMICAL INGREDIENTS IN THE PRODUCT ARE INVENTORIED USING AN ACCEPTED METHODOLOGY AND FOR SELECTING PRODUCTS VERIFIED TO MINIMIZE THE USE AND GENERATION OF HARMFUL SUBSTANCES.  TO REWARD RAW MATERIAL MANUFACTURERS WHO PRODUCE PRODUCTS VERIFIED TO HAVE IMPROVED LIFE-CYCLE IMPACTS_	
MRc5	Credit	CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT_ TO REDUCE CONSTRUCTION AND DEMOLITION WASTE DISPOSED OF IN LANDFILLS AND INCINERATION FACILITIES BY RECOVERING, REUSING, AND RECYCLING MATERIALS. RECYCLE AND/OR SALVAGE NONHAZARDOUS CONSTRUCTION AND DEMOLITION MATERIALS	2
INDOOF	R ENVIRON	IMENTAL QUALITY	16
	Prereq	MINIMUM INDOOR AIR QUALITY PERFORMANCE	Required
	PREREQ	ENVIRONMENTAL TOBACCO SMOKE CONTROL	Required
	CREDIT	ENHANCED INDOOR AIR QUALITY STRATEGIES	2
EQc2	CREDIT	LOW-EMITTING MATERIALS  TO REDUCE CONCENTRATIONS OF CHEMICAL CONTAMINANTS THAT CAN DAMAGE AIR QUALITY, HUMAN HEALTH, PRODUCTIVITY, AND THE ENVIRONMENT	3
EQc3	Credit	CONSTRUCTION INDOOR AIR QUALITY MANAGEMENT PLAN  TO PROMOTE THE WELL-BEING OF CONSTRUCTION WORKERS AND BUILDING OCCUPANTS BY MINIMIZING INDOOR AIR QUALITY PROBLEMS ASSOCIATED WITH CONSTRUCTION AND RENOVATION.  DEVELOP AND IMPLEMENT AN INDOOR AIR QUALITY (IAQ) MANAGEMENT PLAN FOR THE CONSTRUCTION AND PREOCCUPANCY PHASES OF THE BUILDING	1
	CREDIT	Indoor Air Quality Assessment	2
	CREDIT	THERMAL COMFORT	1
	CREDIT	Interior Lighting	2
	CREDIT	DAYLIGHT	3
	CREDIT	Quality Views	1
	CREDIT	Acoustic Performance	1
	ATION		6
	CREDIT	Innovation	5
	CREDIT	LEED Accredited Professional	1
			4
	CREDIT	REGIONAL PRIORITY: SPECIFIC CREDIT	1
	CREDIT	REGIONAL PRIORITY: SPECIFIC CREDIT	1
	CREDIT	REGIONAL PRIORITY: SPECIFIC CREDIT	1
	CREDIT	REGIONAL PRIORITY: SPECIFIC CREDIT	1

#### 2. NASCO STONE + TILE for SUSTAINABILITY

Nasco Stone + Tile LLC. - 200 Markley Street 07064 - Port Reading, NJ

Tel. 1(732) 602 - 9600

P.IVA 0082821023

Nasco Stone + Tile was born in 1962, in the heart of the stone district of Verona. The company has grown gradually, without losing his identity of family enterprise, strictly connected to the territory: the company converts the material into the surface.

Nasco Stone + Tile considers sustainability a core value of the company and is currently encouraging an improvement in this direction of his affairs.

## Made in Italy

Nasco Stone + Tile is one of the promoter of Made in Italy: all the manufacturing plants are located in Italy, at the foot of the hills of Verona, with a site of more than one hundred thousand square meters. Here are also the headquarters for research and development.

Principal components are:

- Calcareous and siliceous aggregates
- Thermosetting resins
- Pigments
- Additives

Aggregates are obtained from the chipping of stone materials. When it is possible, Nasco Stone + Tile uses products which are the result of the extraction of natural marble blocks. In this way it contributes to a sustainable exploitation of the quarries. Stone aggregates are mixed with pigments and thermosetting resins and submitted to a process of vibro-compaction under vacuum in order to obtain slabs or blocks.

#### Geo-referenced recipes

The products of the two lines NST Marble and NST Quartz have different recipes and compositions. Nasco Stone + Tile, depending on the desired solutions of the clients, can provide specific, geolocalized technical schedules of the different components of the product. According to the requests of the client, it is also able to analyze the compliance to

particular parameters and the origin of the materials which constitute the recipe.

## Actions for the reduction of environmental impacts

The Nasco Stone + Tile slabs production lines adopt integrated systems in order to minimize the environmental impact of their activities, particularly in the reduction of water consumption and in the reduction of emissions in the atmosphere.

#### Reduction of water consumption and emissions in the atmosphere NASCO STONE + TILE

The processes for the cutting, calibration and polishing of Nasco Stone + Tile products require water usage for cooling down the temperature. Both the production plants of NST Marble and NST Quartz are provided with a closed loop system for water treatment, in order to recycle it and limit its consumption.

Both the production plants of NST Marble and NST Quartz are provided with a system for air treatment. During the preparation of the mixtures, a little part of the styrene, which is contained in the resins, evaporates. The contaminated air is intercepted by a vacuum system and this avoid the dispersion of the styrene in the work environment. The aspirated air, before getting out again in the atmosphere, undergoes a process of oxidation, which transforms the hydrocarbons in carbon dioxide and water. To guarantee that the emissions are in compliance with the law, analysis of the air coming out of the system are regularly done.

In the context of LIFE, a program of the European community, Nasco Stone + Tile participated to the project S.A.S.I.E.S - Sludges from Agglomerated Stones Industry for Environmental Sustainability - a project aimed to the development of a new process for the recycling and the treatment of the muds coming from the processing of slabs produced by Nasco Stone + Tile.

#### These are the goals:

- Reduction of non recyclable garbage
- Reduction of management disposal cost
- Reintroduction of the garbage, after appropriate treatments, in different industrial cycles
- Environmental benefits from CO2 emissions savings from the reduced extraction and treatment of raw materials.

## 3. PRODUCTS NASCO STONE + TILE ANALYZED: lines NST QUARTZ and NST MARBLE

Object of the mapping are the lines NST QUARTZ and NST MARBLE



# NST QUARTZ

The distinctive feature of this stone is the large chippings, and wide colour palette. The colours range from the warmest hues, to the most vivid shades ensuring all design tastes are met, creating a harmony in domestic ambience. Large size slabs, cm 305x140, in three thicknesses (12, 20 or 30 mm), accommodates all types of applications in many commercial and domestic situations.

## **NST MARBLE**

NASCO STONE + TILE agglomerate made from marble chips and powder has all the shades and aesthetic qualities of natural stone combined with an exceptional performance. The most valued raw materials are carefully chosen from nature itself, and then processed with the latest technology to create collections that make any setting unique and exclusive.



4. SYNOPTIC CHART OF NASCO STONE + TILE PRODUCTS: HOW THEY CAN CONTRIBUTE TO PREREQUISITES AND LEED CREDITS



# **LEED V4 Credits to which products can contribute**

## **LINES NST MARBLE**

Category: Brecciati

Category: Marghestone

## **LINES NST QUARTZ**

Category: Classic Category: Contract Category: Glitter Category: Metropolis Category: Stardust

**Category: Venati** 

**Category: Wave** 

#### **LEED BD+C V4**

- New Construction & Major Renovation
- Core & Shell
- Schools
- Retail
- Hospitality
- Data Centers
- Warehouses and Distribution Centers
- Healthcare

# SUPPORT TO PROJECT CONCEPT, PLANNING AND CONSTRUCTION

NASCO STONE + TILE Supports his client from the concept of the project up to the completion of the building. The company believes in the importance of guiding the client throughout the entire process in order to realize:

- Devoted, stable and qualified assistance
- Consultancy in the materials selection
- Complete sampling assistance
- Realization of new bespoken colors
- Visits to the job-site
- Assistance during the installation
- Material warranty provided
- Assistance for the future management of the materials and the operations of substitution and renovation

Products N A S C O S T O N E + T I L E contribute to environments healthiness. They are tested by the international authority NSF —www.nsf.org — for contacts with foods.

# AREA IP INTEGRATIVE PROCESS

- INTEGRATIVE PROJECT PLANNING AND DESIGN Prerequisite for Healthcare
- ♦ INTEGRATIVE PROCESS (Integrated process) Credit



# PROMOTION FOR THE REDUCTION OF ENERGETIC CONSUMPTION

NASCO STONE + TILE product features can support the OPR – Owner Project Requirement – in different aspects

- Requisites of purpose and usage: NST can contribute providing specific tests on the quality of materials and on the durability and providing maintenance instructions.
- Environmental purposes: NST can contribute, with the specific features of his products, to the preservation of resources and materials.
- Purposes for the quality of indoors environments air:
   NST products can contribute, being certified Greenguard
   Gold Certification, due to his low VOC emissions

#### AREA EA ENERGY AND ATMOSPHERE

ENHANCED COMMISSIONING (Advanced Commissioning of the building) Credit

#### PRESERVATION OF RESOURCES AND MATERIALS

NASCO STONE + TILE product packages are all made by recyclable materials:

- LPDE polyethylene with low molecular density
- EPS foam polystyrene
- Cardboard packaging
- Wooden crates

#### NASCO STONE + TILE PACKAGING CALCULATOR

NASCO STONE + TILE developed a tool to provide to clients the most efficient packing of each material according to category and transport mode.



In that way SNASCO STONE + TILE helps the client to predict the impact of the supplies in the waste management plans.

# AREA MR MATERIALS AND RESOURCES

- CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT PLANNING (Plan for the waste management during the activities of building and demolition) Prerequisite
  - CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT (Waste management of the activities of building and demolition) Credit

BUILDING PRODUCT DISCLOSURE AND OPTIMIZATION: SOURCING OF RAW MATERIALS (Procurement of raw materials) Credit OPTION 2. Leadership Extraction Practices NASCO STONE + TILE realizes lots of products whose elements are tested as recyclable materials, in a various percentage from 7% to 93%, according to products' specifications.

-Line NST Marble

Products with RECYCLABLE MATERIALS 7–93%
Althea, Avena, Bianco Avorio, Bianco ghiaccio, Bianco Neve, Cotone, Crema, Daphne, Dhalia, Fiorito, Iris, Lapponia, Lino, Magnolia, Maremma, Mimosa, Ninfea, Olympia, Peonia, Sicilia.

–Line SM Quartz – Categories "Stardust" and "Glitter"
Products with RECYCLABLE MATERIALS 32–60%
Stardust Beige, Stardust bianco, Stardust Grigio, Stardust marrone, Stardust Nero, Stardust Pastel Green, Stardust Rosa, Stardust Rosso, Stardust Sky, Bronze, Gold, Iron, Pewter, Silver.

NASCO STONE + TILE has available an internal mapping system, codified with ZIP codes of his production site and of the places of origin of the raw materials. A georferenced data sheet with the procurement sites and production sites can be provided for every product.

NASCO STONE + TILE manifactures various products and uses chemical components, REACH lists are therefore continuously supervised and the company is able to produce his own statements on each product.

Products can contribute to the "green option" when they are free from the substances listed in the "Authorization list", or in the "Candidate List", or in the "Restriction List". Since REACH lists can vary over time, documents are dated and the supervision is kept updated.

**Recycled Content:** different types of products NASCO STONE + TILE have elements tested as recyclable materials, from 7% to 93%, according to products' specifications.

BUILDING PRODUCT DISCLOSURE AND OPTIMIZATION: MATERIAL INGREDIENTS (Divulgation and optimization of the construction products: Composition and materials' ingredients) Credit

OPTION 2. Material ingredient optimization – International Alternative Compliance Path – REACH Optimization

CONTRIBUTION TO QUALITY AND HEALTHINESS OF INTERIORS, AND TO THE ADOPTION OF LAW EMISSIONS MATERIALS

Products NASCO STONE + TILE are certified GREENGUARD GOLD.



This standard defines low emissions materials suitable for sensitive internal environments like schools or nursing facilities. GREENGUARD requisites are in compliance with the State of California's Department of Public Health Services Standard Practice for Specification .Section 01350 (California Section 01350).

Products NASCO STONE + TILE support the project team to adopt a material specification suitable with low air emissions standards.

AREA EQ
INDOOR ENVIRONMENTAL QUALITY

♦ LOW-EMITTING MATERIALS Credit

INDOOR AIR QUALITY ASSESSMENT (Assessment of indoors air quality) Credit

# 5. CONTRIBUTION MATRIX

# **CONTRIBUTION MATRIX – Credits to whom the product can contribute,** compared to the reference standard **PRODUCT** LEED BD+C V4 New Construction & Major Renovation, Core & Shell, Schools, Retail, Hospitality, DATA CENTERS, WAREHOUSES AND DISTRIBUTION CENTERS, HEALTHCARE NASCO STONE + TILE LLC. > LINE NST MARBLE AREA IP Category Brecciati Category Marghestone IPp1 INTEGRATIVE PROJECT PLANNING AND DESIGN Prerequisite Healthcare IPc1 INTEGRATIVE PROCESS (Integrated process) Credit LINE NST QUARTZ AREA EA **Category Classic** EAC1 ENHANCED COMMISSIONING (Advanced commissioning of the building) **Category Contract** Credit **Category Glitter Category Metropolis** AREA MR **Category Stardust** MRp2 CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT PLANNING **Category Venati Category Wave** (Planning for waste management) Prerequisite MRc5 CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT (Waste management during the operations of construction and demolition) Credit MRc3 BUILDING PRODUCT DISCLOSURE AND OPTIMIZATION Credit SOURCING OF RAW MATERIALS (Procurement of raw materials) OPTION 2. Leadership Extraction Practices Recycled Content \* \* Lines NST MARBLE Marghestone e SM QUARTZ Stardust + Glitter MRc4 BUILDING PRODUCT DISCLOSURE AND OPTIMIZATION Credit MATERIAL INGREDIENTS (Divulgation and optimization of the construction products: Composition and materials' ingredients) OPZIONE 2. Material ingredient optimization -International Alternative Compliance Path - REACH Optimization AREA EQ **EQc2 LOW-EMITTING MATERIALS** EQC4 INDOOR AIR QUALITY ASSESSMENT (Assessment of indoors air quality) Credit





Habitech – Distretto Tecnologico Trentino Piazza Manifattura, 1 38068 Rovereto (TN) Tel. 0464 443450