

March 30th, 2015

MasterSeal Roof 2103®

Product Information Statement for LEED® - Credit Documentation:

1. General informations:

The following information is provided to demonstrate how our materials can assist specification professionals in qualifying for LEED credits (latest version LEED v4, revised 2012).

MasterSeal Roof 2103® liquid applied roof waterproofing kit credits apply to both LEED-New Construction (NC) and LEED-Existing Building (EB) unless otherwise noted and should be used for LEED projects **outside** of North America.

2. MasterSeal Roof 2103® - LEED credits qualification:

MasterSeal Roof 2103® is a spray applied, crack bridging polyurethane roof waterproofing system, low emission, with matt or satin finish. Can be use in conjunction with other BASF products exterior use.

BASF CC Europe AG certifies the following information for **MasterSeal 2103®**:

Recycled Content

MasterSeal Roof 2103® recycled material content is not available at this time and should be assumed **0%** for LEED purposes.

VOC Content**

** According with "LEED General Emissions Evaluation - Pilot Credit: Low-Emitting Interiors", BASF CC Europe AG certifies that

MasterSeal Roof 2103® system has a V.O.C. (Volatile Organic Compound) content as follow:

- MasterSeal M 803 – 20 g/l
- MasterSeal TC 259 – 480 g/l

** Indicated values **are lower and compliant with applicable national VOC control regulations**, e.g. the European "Decopaint" Directive (2004/42/EC) and fulfills "LEED - Additional VOC Content Requirements for Wet Applied Products" where on-site wet applied products shall not contain excessive levels of VOC for minimizing impacts on installers and other trades during and immediately after application of the involved products.

Rapidly Renewable Content

MasterSeal Roof 2103® system has a renewable material content of 11%.



We create chemistry

Regional Materials

MasterSeal Roof 2103 is manufactured in **Oldenburg, D – 26123 (Germany)**. Raw material extraction location is not available at this time. Manufacturing and processing location is described below and an additional point can be awarded if the project site is within 804, 67 km (500 miles) radius from Oldenburg.



Based upon the above information, BASF Corporation certifies that **MasterSeal Roof 2103®** could contribute to the following LEED NC and LEED EB Credits:

EQ Credit 4.2: Low-Emitting Materials: Paints & Coatings

MR Credit 1: Building Reuse: **MasterSeal Roof 2103®** can be used to rehabilitate an existing building and lessen the need for new facilities

MR Credit 2: Construction Waste Management: The packaging materials used for MasterTop and MasterSeal products are recyclable where recycling facilities exists

Respectfully,

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1. LEED credits description:

Materials and Resources – MR		
Building Reuse	(MR Credit 1.1 & 1.2 – up to 2 points)	To extend the lifecycle of existing building stock, conserve resources, retain cultural resources, reduce waste and reduce environmental impacts of new buildings as they relate to materials manufacturing and transport. 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.
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.
Materials Reuse	(MR Credit 3.1 & 3.2 – up to 2 points)	To increase demand for building products that incorporate recycled content materials, thereby reducing impacts resulting from extraction and processing of virgin materials. 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).
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.
Rapidly Renewable Materials	(MR Credit 6 – up to 2 points)	To reduce the use and depletion of finite raw materials and long-cycle renewable materials by replacing them with rapidly renewable materials. Using rapidly renewable materials i.e. those made from plants harvested within a 10- year or shorter cycle. Polyurethane binders are used to enable the use of bio- based materials as construction products and polyurethanes with polyol made from sugar.

<p>Indoor Environmental Quality - EQ</p>		
<p>Low Emitting Materials - Paints and Coatings</p>	<p>(EQ Credit 4.2 - 1 point)* *Under LEED v4, revised in 2012, this credit is renamed as Pilot Credit 21 and has additional VOC requirements for wet applied products.</p>	<ul style="list-style-type: none"> • <u>General emissions evaluation.</u> Building products must be tested and determined compliant in accordance with California Department of Public Health (CDPH) Standard Method v1.1–2010, using the applicable exposure scenario. The default scenario is the private office scenario. The manufacturers or third-party certification must state the exposure scenario used to determine compliance. Claims of compliance for wet-applied products must state the amount applied in mass per surface area. Projects outside the United States may use products tested and deemed compliant in accordance with either (1) the CDPH standard method (2010) or (2) <u>the German AgBB Testing and Evaluation Scheme (2010).</u> • <u>Additional VOC content requirements for wet-applied products.</u> In addition to meeting the general requirements for VOC emissions (above), on-site wet-applied products must not contain excessive levels of VOCs, for the health of the installers and other trades workers who are exposed to these products. To demonstrate compliance, a product or layer must meet the following requirements, as applicable. Disclosure of VOC content must be made by the manufacturer. Any testing must follow the test method specified in the applicable regulation. All paints and coatings wet-applied on site must meet the applicable VOC limits of the California Air Resources Board (CARB) 2007, Suggested Control Measure (SCM) for Architectural Coatings, or the South Coast Air Quality Management District (SCAQMD) Rule 1113, effective June 3, 2011. For projects outside North America, all paints, coatings, adhesives, and sealants wet-applied on site must either meet the technical requirements of the above regulations, or comply with applicable national VOC control regulations, such as the <u>European Decopaint Directive (2004/42/EC)</u>, the Canadian VOC Concentration Limits for Architectural Coatings, or the Hong Kong Air Pollution Control (VOC) Regulation.
<p>Advanced Acoustical Performance *LEED for Schools only</p>	<p>(EQ Credit 9 - up to 2 points)</p>	<p>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.</p>