

# **Premium Natural Stones**

**MS International Inc.** 

This product has been certified according to the GREENGUARD Children & Schools Certification Program for Low Emitting Products

# **Certificate of Compliance**

# **Certification Details:**

Certificate No: 90414-18 Status: Certified Period: 02/2012 - 02/2013 Restrictions: NONE

#### Reference Standard: GGPS.002 GREENGUARD Children & Schools™ Standard

#### Product Type: All Products

Criteria	Allowable Limits		
Individual VOCs1,2	$\leq$ 1/100 TLV and $\leq$ ½ CA chronic REL (Office Seating $\leq$ 1/100 TLV and $\leq$ ¼ CA CREL)		
Formaldehyde	$\leq$ 0.0135 ppm /13.5 ppb (Office Seating $\leq$ 0.00675 ppm / 6.75 ppb)		
TVOC <sup>3</sup>	$\leq 0.22 \ \mu g/m^3$		
Total Aldehydes⁴	≤ 0.043 ppm /43 ppb		
Total Phthalates⁵	$\leq 0.01 \ \mu g/m^3$		
Total Particles <sup>6</sup>	$\leq 0.02 \ \mu g/m^3$		

See referenced standard for a complete technical explanation.

<sup>1</sup>Any VOC not listed must produce an air concentration level no greater than 1/100 the Threshold Limit Value (TLV) industrial work place criterion (Reference: American Conference of Government Industrial Hygienists, 6500 Glenway, Building D–7, Cincinnati, Ohio 45211–4438) and no greater than 1/2 the CA Chronic Reference Exposure Level (CREL) http://www.oehha.ca.gov/air/chronic\_rels/AllChrels.html – (CRELs) Adopted by the State of California Office of Environmental Health Hazard Assessment (OEHHA), December 2008).

<sup>2</sup>1-Methyl-2-Pyrrolidinone must be  $\le 0.16 \ \mu g/m^3$  for Office Furniture or  $\le 0.080 \ \mu g/m^3$  for Office Seating.

<sup>3</sup>Defined to be the total response of measured VOCs falling within the C6-C16 range, with responses calibrated to a toluene surrogate.

<sup>4</sup>Defined to be the total response of a target list of aldehydes (2-butenal; acetaldehyde; benzaldehyde; 2, 5-dimethylbenzaldehyde, 2-methylbenzaldehyde; 3-and/or 4-methylbenzaldehyde; butanal; 3-methylbutanal; formaldehyde; hexanal; pentanal; propanal), with each individually calibrated to a compound specific standard.

<sup>5</sup>Total phthalates include dibutyl (DBP), diethylhexyl (DEHP), diethyl (DEP), butylbenzyl (BBP), di-octyl (DOP), and dimethyl (DMP) phthalates.

<sup>6</sup>Particles are only applicable to fibrous, particle-releasing products with exposed surface area in air streams.

Seating, Workstations and Casegood Systems complies with ANSI/BIFMA e3-2010 Credit 7.6.2.

Complies with California Department of Health Services' "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers" Version 1.1 (CA section 01350)

GREENGUARD Certification affirms that products meet the criteria of the referenced standard and the requirements of the specific certification program. Certification testing is conducted according to a consistent, defined protocol. The testing does not evaluate emissions under usage conditions other than those defined in the protocol and does not address potential environmental impact other than chemical and particle emissions.

The GREENGUARD Environmental Institute (GEI) is an industry independent, third-party certification organization that qualifies products for low chemical emissions. GREENGUARD Certification programs use defined product standards, test methodologies, product sample collection and handling procedures, program application processes and on-going verification procedures. GREENGUARD standards, methods, and procedures are available at www.GREENGUARD.org.

# GREENGUARD Certification for Flooring



GREENGUARD Certification empowers manufacturers to communicate a strong health-based message and indicates that a product contributes to the creation of healthier, more productive indoor environments.

# Why GREENGUARD?

While all types of products can off-gas potentially harmful pollutants, market research shows that people are acutely aware of emissions associated with flooring, not surprisingly, then, people are extremely interested in low-emitting product options. In fact, a steadily increasing number of sustainable building programs, codes, procurement policies and governmental and corporate specifications are now incorporating emissions criteria. This gives a clear competitive edge to manufacturers that can provide purchasers and end-users with the lowest-emitting products.

GREENGUARD Children & Schools Certification enables manufacturers to meet these marketplace demands while demonstrating concern for their customers' health and well-being. That's because GREENGUARD Children & Schools Certified products don't just meet the basic emissions criteria outlined in LEED and CA 01350—they exceed them.

# Benefits of GREENGUARD Certification

Manufacturers that achieve GREENGUARD Certification are armed with the tools needed to effectively communicate the complex message of low-product emissions to the marketplace. And, they can do it in a highly recognizable, market-friendly way—just by using the GREENGUARD Certified mark. Research shows that GREENGUARD is the most recognized and trusted product emissions certification on the market, and that architects, designers and end users alike consider indoor air quality a key sustainable product attribute.

Participating manufacturers are encouraged to take advantage of GREENGUARD's comprehensive technical and marketing support. They're also entitled to publish their products in the free online GREENGUARD Product Guide—a trusted resource for specifiers of low-emitting products.



GREENGUARD Children & Schools Certified<sup>SM</sup> flooring can help building and design teams earn points in green building rating systems, satisfy code or ordinance criteria, and meet indoor air quality-specific RFP requirements of nearly 150 programs. Here is an overview of some of the most notable sustainable building programs that recognize or reference GREENGUARD Children & Schools Certification:

### LEED for New Construction /

# LEED for Commercial Interiors / LEED for Schools

• IEQ Credit 4.3 Low-Emitting Materials –Flooring Systems

### LEED for Homes

• MR Credit 2.2 Flooring Systems

# LEED for Retail Commercial Interiors / LEED for Retail New Construction

• IEQ Credit 4: Option C Flooring Systems

### LEED for Healthcare

• IEQ Credit 4: Group 3 - Floorcovering

# Higher Standards. Healthier Air.

# ASHRAE 189.1

• 8.4.2.3 - Floorcovering Materials

# Collaborative for High Performance Schools (CHPS)

• Credit 2.2.3 – Flooring Systems

#### Green Globes

• 12.2.3 Source Control of Indoor Pollutants

### Green Guide for Healthcare 2.2

• EP Credit 3.3 Flooring Systems

### Green Star Australia/New Zealand/South Africa

• Flooring Systems

# International Green Construction Code (IgCC)

• 806.4 (2) Flooring Systems

# NAHB Green Building Standard

• 901.7 Flooring Systems

The value of a third-party certification is tied directly to the stringency of its standards. Here's a look at how the GREENGUARD Children & Schools standard compares to other emissions-based standards referenced in the flooring industry:

Program	Run By	Individual VOCs Addressed	TVOC Limit	Notes
GREENGUARD Children & Schools	Third-party health-based certification created and run by the GREENGUARD Environmental Institute	Limits 360+ VOCs	Yes	Meets CA 01350 criteria and sets limits on more than 320 additional chemicals.
Floorscore	Industry-backed program created and run by the Resilient Floorcovering Institute (RFI)	Limits 35 VOCs	No	Meets CA 01350 criteria but contains no additional requirements.
CA 01350 Testing	Not a certification, but rather a test method created by the California Department of Public Health (CDPH)	Limits 35 VOCs.	No	To use as compliance path, each configuration must be tested, and lab report data must be provided.



2211 NEWMARKET PARKWAY, SUITE 110 MARIETTA, GEORGIA 30067 800•427•9681

www.greenguard.org