

# INDOOR ADVANTAGE<sup>\*</sup>

# SCS Indoor Advantage<sup>™</sup> Gold: Paints and Coatings

SCS Indoor Advantage<sup>TM</sup> Gold certifies compliance with the most rigorous indoor air quality emissions standards in North America.

- Paints and coatings comply with the most stringent volatile organic compound (VOC) content limits established by California's South Coast Air Quality Management District.
- Paints and Coatings meet the health-based VOC chemical emissions requirements for building products defined by the CA Special Environmental Section 01350 specification (CA 01350).
- CA 01350 specifies VOC emission limits for school classrooms and commercial offices.
- VOC emission limits are based on the

California Office of Environmental Health and Hazard Assessment's list of Chronic Reference Exposure Levels (CRELs) for 80 individual chemicals.



# Certification Assessment Process:

SCS Indoor Advantage<sup>™</sup> Gold certification involves a rigorous three step process: documentation review, on-site audit of manufacturing plant(s), and laboratory testing of product test samples.

#### 1. Documentation:

SCS auditors review the product information, manufacturer's quality system, and corresponding documentation which must meet the minimum requirements established in the SCS Indoor Air Quality Performance Standard EC-10.2-2007, including VOC content limits.

## 2. On-site Audit:

Manufacturing facilities are inspected by SCS to ensure facilities operate using their specified quality control procedures, including product traceability, consistency, and production and design control. The auditor also selects representative product samples for laboratory testing.

## 3. Laboratory Testing:

Products undergo chamber testing at independent laboratories, which measures the product's actual VOC emissions over fourteen days. Test results are then modeled to a scenario that takes into account the amount of product used in an indoor space, dimensions of the indoor space, and the air exchange rate for the scenarios under consideration. Current modeling scenarios include commercial offices and school classrooms. The VOC concentrations calculated by the model are compared to the allowable limits to determine compliance to the VOC emission requirements of CA 01350.

A final certification decision is based on the quality control system of the manufacturing process, the product's VOC emissions performance, and compliance with all applicable standards.

#### Certification for a Sustainable World<sup>™</sup>

Providing global leadership in third-party environmental and food quality certification, auditing, testing, and standards development for over 25 years.



# How does certification work?

SCS works closely with the manufacturer throughout the process to:

- 1. Review the product production process and identifying the appropriate samples for testing;
- 2. Exavmine VOC emission test reports from chamber tests conducted by independent testing laboratories;
- 3. Determine if test results conform to LEED, BIFMA, CHPS and/or California 01350 criteria;
- 4. Audit the manufacturer's documented control system; and
- 5. Inspect manufacturing plants periodically to review product formulas, processing, and quality control in order to monitor continued compliance with the standard and use of the SCS certification mark.

# **Benefits of Certification**

- Differentiate products, backed by third-party certification.
- Earn LEED credits.
- Provide manufacturers with a path for continuous improvement in environmental sustainability.
- Allow manufacturers to work closely with suppliers to improve product performance along supply chain.
- Provide an objective tool for supplier performance evaluation programs.
- Link environmental strategies to bottom-line cost savings.
- Allow manufacturers to sell product to schools and health care facilities following California 1350 (applies to Indoor Advantage Gold and FloorScore).
- Support safe, healthy work environments for workers and product users.

# Sustainable Choice, Indoor Advantage, and FSC Certifications

In addition to certification under the SCS Material Content program, SCS provides Sustainable Choice for carpet (based on NSF 140-2007) and furniture (based on BIFMA SS). SCS is also an accredited certifier under the Forest Stewardship Council (FSC) of forest management and forest products derived from certified well-managed forests and transferred through the Chain-of-Custody.

#### What is the basis of the VOC criteria used for certification?

#### Indoor Advantage<sup>™</sup>

The VOC criteria for Indoor Advantage are based on the ANSI / BIFMA Furniture Emissions Standards, which meet the requirement of LEED-CI EQ Credit 4.5: Low-Emitting Materials, Systems Furniture and Seating.

#### Indoor Advantage<sup>™</sup> Gold

Indoor Advantage Gold is founded on the CA Section 01350 Specification, the only health-based building material specification for indoor air quality. The screening limits for emissions under Section 01350 are based on the California Office of Environmental Health Hazard Assessment's (OEHHA) Chronic Reference Exposure Levels (CRELS). CRELs are concentrations below which adverse health effects are not likely to occur from a long-term exposure to hazardous airborne substances. has developed chronic toxicity guidelines for air pollutants that provide a strong scientific basis for the Indoor Advantage<sup>™</sup> Gold program. The OEHHA program uses widely accepted procedures developed by the U.S. EPA and includes extensive peer review and public comment. Only toxicity data are used in the assessment. To date, the program has developed Chronic Reference Exposure Levels (CRELs) for 78 chemical substances. CRELs are concentrations that assume long-term exposures and include a number of conservative uncertainty factors (http://www.oehha. ca.gov/air/chronic\_rels/agency.html).

For a product to qualify for Indoor Advantage Gold certification, its estimated VOC concentrations for classrooms and offices must not exceed one half the CREL concentrations under the assumption that other products in a building also may be sources of the same compounds. Criteria are also derived from a variety of programs including the South Coast Air Quality Management District (SCAQMD) Rule 1113 and 1168. Indoor Advantage Gold also meets the relevant emissions criteria established in USGBC LEED Rating Systems.



#### **Scientific Certification Systems**

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