

Indoor Advantage Certification Program

#544 - VOC Workshop – Healthy Buildings 2009

September 15, 2009

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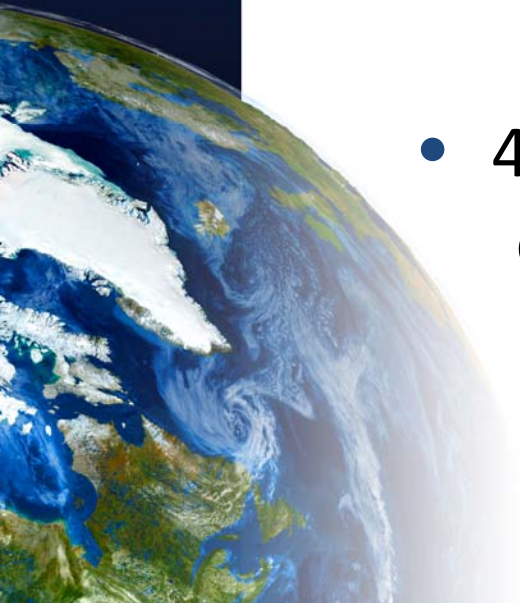
Program Manager, Indoor Air Quality + level™

Scientific Certification Systems (SCS)



Indoor Advantage Certification Program

- Established by Scientific Certification Systems (SCS) in 2004
 - SCS Founded in 1984
- Voluntary program for a wide range of interior furnishings and building materials
- Transparent option for manufacturers, based on the best peer-reviewed science
- 44 manufacturers from around the world, over 800 different product series



The Labels

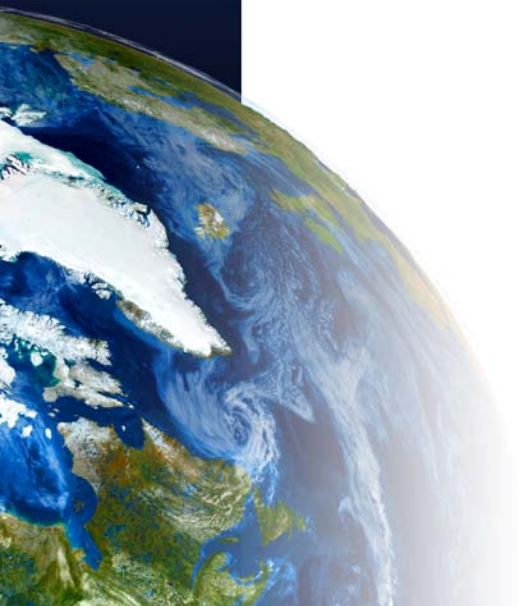


- SCS Indoor Advantage™
- SCS Indoor Advantage™ Gold
- Both conform with USGBC's LEED Green Building Rating Systems
 - Low-emitting materials criteria

Indoor Advantage

- Targets office furniture and seating
- Complies with ANSI/BIFMA Furniture Emissions Standards¹
 - Requires 7-day chamber testing
 - Limits for Workstations (Seating = ½)
 - TVOC_{toluene} < 0.5mg/m³
 - Formaldehyde < 50 ppb
 - Total Aldehydes < 100 ppb
 - 4-Phenylcyclohexene < 0.0065mg/m³

¹ ANSI/BIFMA M7.1-2007 and ANSI/BIFMA X7.1-2007



Indoor Advantage Gold (IA Gold)

- Targets a variety of interior furnishings and building materials
- Complies with CA Section 01350²
 - Requires 14-day chamber testing
 - Emissions Limits
 - Formaldehyde $\leq 16.5 \mu\text{g}/\text{m}^3$
 - Acetaldehyde $\leq 9 \mu\text{g}/\text{m}^3$
 - All other organic chemicals $\leq \frac{1}{2}$ CRELs
 - For commercial office & school classroom settings

² California DHS Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers (CA/DHS/EHLB/R-174, 2004)

Additional Requirements – IA Gold

- Office furniture and seating
 - ANSI/BIFMA Furniture Emissions Standards
- Architectural paints and coatings
 - South Coast Air Quality Management District (SCAQMD) Rule 1113
 - Section 4 of Green Seal GS-11
- Adhesives and sealants
 - SCAQMD Rule #1168
 - Green Seal GS-36 (Aerosol adhesives)
- Composite wood and agrifiber products
 - no added urea-formaldehyde resins

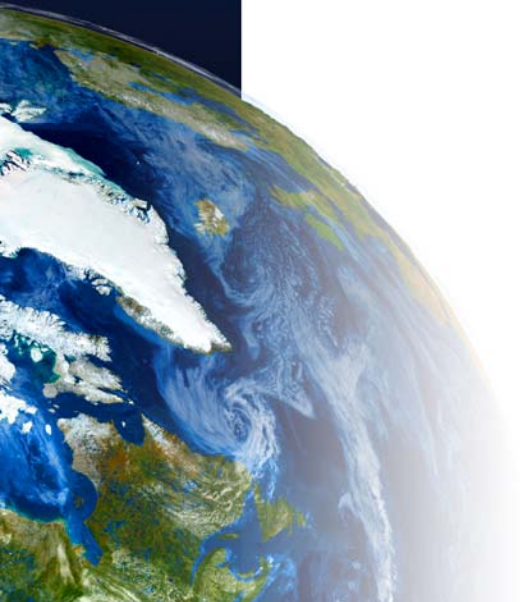


Certification Requirements

- Manufacturing site inspection
- Audit of a quality management system
 - Based on ISO 9001 requirements
- Product chamber testing
 - Independent, approved laboratories

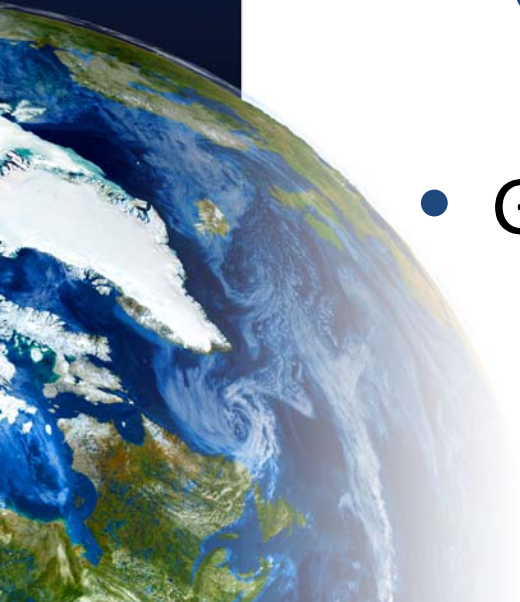
Current Labs

- Berkeley Analytical Associates - Richmond, CA
- Eurofins Product Testing A/S - Galten, Denmark



Recognition of Label

- Major green building rating systems:
 - USGBC LEED Rating Systems
 - Collaborative for High Perf. Schools (CHPS)
 - Green Guide for Health Care
 - NAHB National Green Building Standard Green Building Initiative
- Global manufacturer participation:
Asia, Europe, India, North and South America



Conclusions

- SCS' Commitment to the science of IAQ
 - Support of external IAQ standards
 - Use of independent laboratories
 - Inclusion of IAQ within LCA standard
- Challenges
 - Gap between research and industry
 - Bridged through green building requirements
 - Market's lack of understanding
 - Market claims unsupported by research
 - Phthalates
 - Residential application



Thank You

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