

Healthy Buildings 2009

FloorScore Flooring Products Certification Program for Indoor Air Quality



Bill Freeman
Resilient Floor Covering Institute

FloorScore®

- Voluntary, independent IAQ Certification Program to test and certify hard surface flooring
- Based on compliance with VOC emissions criteria developed by California Department of Health Services
- Program designed to meet the needs of building owners, specifiers, regulatory agencies and sustainability standards bodies

Organization and Administration

- Resilient Floor Covering Institute (RFCI) – controls FloorScore name and logo
- Scientific Certification Systems (SCS) – third party certifier ensuring program integrity and independence
 - Identifies samples for testing
 - Reviews VOC emissions reports from independent laboratories
 - Determines if test results meet CA Section 1350 requirements
 - Periodically inspects manufacturing facilities

Sample Collection and Testing

- Specific requirements for selection, collection and handling
- Annual test required
- Documentation of manufacturers quality control program

Basis of VOC Criteria

- California Office of Environmental Health Hazard Assessment's (OEHHA) reference exposure level (REL) program for air pollutants
- Chronic RELs for over 80 chemical substances
- Testing and data analysis open and transparent
- Specifies scenarios for typical school classrooms and offices

Conduct of Test

- 10 day conditioning period
- 4 day test period
- Temperature – $23 \pm 2^{\circ}\text{C}$
- Relative Humidity – $50 \pm 10\%$
- Air changes per hour – 1 ± 0.05

Laboratory Data Analysis

- ASTM D5116
- Chamber VOC concentrations used to calculate VOC emission factors
- Models making assumptions about emissions decay profiles are avoided
- Emission factors used to estimate VOC concentrations in offices and classrooms
- Standardized building scenarios used to allow products to be evaluated on an equitable basis

FloorScore Certified Flooring Products

24 flooring manufacturers from North America, Europe and Asia have certified over 300 flooring products

- Vinyl
- Linoleum
- Polymeric
- Rubber
- Cork
- Laminate
- Ceramic
- Bamboo
- Wood
- Wall Base
- Adhesives

Environmental Rating Systems

- U.S. Green Building Council LEED Rating System
- Green Guide for Healthcare
- NAHB National Green Building Standard
- Collaborative for High Performance Schools
- CSI Green Format
- GBI Green Building Assessment
- EPA Tools for Schools

Conclusions

- VOC emission testing a must for resilient flooring manufacturers
- FloorScore provides a comprehensive certification program well accepted in the marketplace
- Future environmental rating systems will demand robust 3rd party certification rather than simply an emissions test report