
EQ Credit 4: Low-Emitting Materials

1–4 Points

Intent

Reduce the quantity of indoor air contaminants that are odorous, irritating and/or harmful to the comfort and well-being of installers and occupants.

Requirements

Projects may choose any of the following options, with a maximum of 4 points.

OPTION 1—ADHESIVES & SEALANTS (1 point)

All adhesives and sealants installed in the building interior (defined as inside of the weatherproofing system and applied on-site) shall meet the testing and product requirements of the California Department of Health Services *Standard Practice for The Testing Of Volatile Organic Emissions From Various Sources Using Small-Scale Environmental Chambers*, including 2004 Addenda.

OPTION 2—PAINTS & COATINGS (1 point)

All paints and coatings installed in the building interior shall meet the testing and product requirements of the California Department of Health Services *Standard Practice for The Testing Of Volatile Organic Emissions From Various Sources Using Small-Scale Environmental Chambers*, including 2004 Addenda.

OPTION 3—FLOORING SYSTEMS (1 point)

All flooring elements installed in the building interior shall meet the testing and product requirements of the California Department of Health Services *Standard Practice for The Testing Of Volatile Organic Emissions From Various Sources Using Small-Scale Environmental Chambers*, including 2004 Addenda.

OPTION 4—COMPOSITE WOOD & AGRIFIBER PRODUCTS (1 point)

All composite wood and agrifiber products installed in the building interior shall meet the testing and product requirements of the California Department of Health Services *Standard Practice for The Testing Of Volatile Organic Emissions From Various Sources Using Small-Scale Environmental Chambers*, including 2004 Addenda.

OPTION 5—FURNITURE & FURNISHINGS (1 point)

Classroom furniture including all student and teacher desks, tables and seats introduced into the project space that has been manufactured, refurbished or refinished within one year prior to occupancy must meet one of the requirements below. Salvaged and used furniture that is more than one year old at the time of occupancy is excluded from the credit requirements.

Method A: GREENGUARD™ Children & Schools CertifiedSM

OR

Method B: Calculated indoor air concentrations that are less than or equal to those established in **Table 1** for furniture systems and seating determined by a procedure based on the U.S. Environmental Protection Agency's Environmental Technology Verification (ETV) Large Chamber Test Protocol for Measuring Emissions of VOCs and Aldehydes (September 1999) testing protocol conducted in an independent air quality testing laboratory.

OR

Table 1: Indoor Air Concentrations

Chemical Contaminant	Emission Limits Systems Furniture	Emission Limits Seating
TVOC	0.5 mg/m ³	0.25 mg/m ³
Formaldehyde	50 parts per billion	25 parts per billion
Total Aldehydes	100 parts per billion	50 parts per billion
4 – Phenylcyclohexene (4-PCH)	0.0065 mg/m ³	0.00325 mg/m ³

Method C: Calculated indoor air concentrations that are less than or equal to those established in Table 1 for furniture systems and seating determined by a procedure based on BIFMA M7.1-2005 and X7.1-2005 testing protocol conducted in an independent third party air quality testing laboratory.

OPTION 6—CEILING AND WALL SYSTEMS (1 point)

All gypsum board, insulation, acoustical ceiling systems and wall coverings installed in the building interior shall meet the testing and product requirements of the California Department of Health Services *Standard Practice for The Testing Of Volatile Organic Emissions From Various Sources Using Small-Scale Environmental Chambers*, including 2004 Addenda.

Potential Technologies & Strategies

Clearly specify requirements for product testing and/or certification in the construction documents. Some programs that offer verification of the cited standard for Options 1–4 and 6 are Indoor Advantage™ Gold, GREENGUARD™ Children & SchoolsSM, the Resilient Floor Covering Institute’s FloorScore™ program, the Carpet and Rug Institute’s Green Label Plus™ program and the Collaborative for High Performance Schools product list. Indoor Advantage Gold offers verification of the BIFMA standard cited in Option C of the Furniture Option.