

# Sustainability assessment for resilient floor coverings

## NSF International Draft Standard

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resilient floor coverings**

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## Foreword<sup>2</sup>

This Draft American National Standard for Trial Use, NSF 332 Sustainability Assessment for Resilient Floor Coverings, has been developed as part of ongoing efforts of a number of interested parties to document and improve the sustainability profile of resilient floor coverings. The purpose of the Draft Sustainability Standard is to establish consistent requirements for sustainable resilient floor covering products. These requirements are intended to form the basis of conformity assessment programs, such as third-party certification or registration.

The Draft Sustainability Assessment Standard for Resilient Floor Coverings has been designed, in part, to satisfy the following criteria:

- demonstrate how resilient floor covering products can conform to the environmental, economic, and social principles of sustainability throughout the supply chain;
- demonstrate conformance with ISO Type 1 (14024) and Type 2 (14021) environmental labeling and declaration requirements;
- demonstrate conformance with the Federal Trade Commission (FTC) Guides for the Use of Environmental Marketing Claims;
- create confidence in the various stakeholders (manufacturers, suppliers, regulators, and consumers) that the products labeled with a third-party certification mark consistently meet the requirements of this program; and
- encourage participation by all manufacturers of resilient floor coverings to improve environmental performance.

Comments on this Draft Standard for Trial Use should be sent to NSF International, Standards Department, P. O. Box 130140, Ann Arbor, Michigan 48113-0140, USA or to [standards@nsf.org](mailto:standards@nsf.org).

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<sup>2</sup> The information contained in this Foreword is not part of this American National Standard (ANS) and has not been processed in accordance with ANSI's requirements for an ANS. Therefore, this Foreword may contain material that has not been subjected to public review or a consensus process. In addition, it does not contain requirements necessary for conformance to this Draft Standard.

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# NSF International Draft Standard for Trial Use – Sustainability assessment for resilient floor coverings

## 1 General

### 1.1 Purpose

The overall purpose of this Draft Standard is thorough communication of information that is verifiable, accurate, and not misleading about environmental and social aspects associated with the production and use of resilient floor coverings. Such communication is expected to encourage the demand for and supply of products that cause less stress on the environment and society, thereby stimulating the potential for market-driven continuous improvement.

This Standard is intended to secure transparency and creditability for manufacturers in making claims of environmental preferability and sustainability, and to harmonize the principles and procedures used to support such claims.

This Standard provides a practice for assessing the sustainability of resilient floor coverings. Sustainability-related information can inform a manufacturer's decisions about supply chain modifications, product content changes, manufacturing adjustments, performance improvements, end-of-life options, and corporate governance, with the goal of producing more sustainable products.

This Standard addresses environmental performance and sustainability attributes of products, and provides a means to track incremental changes to the products' sustainability profile. This Standard is intended to provide a consistent framework in which to compare and assess the sustainable nature of different products within the context of performing similar functions.

This Standard is intended to be used primarily by product manufacturers interested in understanding the sustainability performance of their products. Independent auditors, certification bodies and environmental labeling organizations are also potential users of this Draft Standard for its use in supporting market-based environmental and sustainability claims. This Standard may also be used by purchasers and consumers who wish to ensure that manufacturers are accurately declaring the sustainable nature of their products.

### 1.2 Scope

This Standard establishes a consistent approach to the evaluation and determination of environmentally preferable and sustainable resilient floor coverings. The Standard includes relevant criteria across the product life cycle from raw material extraction through manufacturing, use, and end-of-life management.

As used in this Draft Standard, "resilient floor coverings" includes, but is not limited to, vinyl tile, vinyl composition tile, sheet vinyl, rubber, polymeric, and linoleum flooring products. The Standard is applicable to products manufactured in one facility or multiple facilities, one country or multiple countries.

### 1.3 Principles

This standard practice was developed based on the following important principles.

### 1.3.1 Life cycle consideration

The life cycle of a product ranges from activities associated with the production and delivery of raw materials or generation of natural resources to the final disposal. This Standard was developed with consideration of the life cycle of resilient floor coverings to help identify the appropriate and relevant characteristics and criteria to be used in evaluating a product's environmental preferability and sustainability.

### 1.3.2 Relationship with legislation

A precondition for claiming conformance with this Draft Standard shall be compliance with environmental and other relevant regulations.

### 1.3.3 International trade aspects

The procedures and requirements included within this Draft Standard have not been prepared, adopted, or applied with a view to creating unnecessary obstacles to international trade.

### 1.3.4 Scientific basis

The criteria contained in this Draft Standard were developed and selected based on sound scientific and engineering principles intended to produce accurate, reproducible results.

### 1.3.5 Product innovation

Use of this Draft Standard is intended to support, not inhibit, innovation that maintains or has the potential to improve environmental and social accountability performance.

## 2 Normative references

ASTM D 6400-04. *Standard Specification for Compostable Plastics*<sup>3</sup>

ASTM E 648-06a. *Standard Test Method for Critical Radiant Flux of Floor-Covering Systems Using a Radiant Heat Energy Source*<sup>3</sup>

ASTM E 662-06. *Standard Test Method for Specific Optical Density of Smoke Generated by Solid Materials*<sup>3</sup>

ASTM F 1066-04. *Standard Specification for Vinyl Composition Floor Tile*<sup>3</sup>

ASTM F 1303-04. *Standard Specification for Sheet Vinyl Floor Covering with Backing*<sup>3</sup>

ASTM F 1344-04. *Standard Specification for Rubber Floor Tile*<sup>3</sup>

ASTM F 1700-04. *Standard Specification for Solid Vinyl Floor Tile*<sup>3</sup>

ASTM F 1859-04. *Standard Specification for Rubber Sheet Floor Covering Without Backing*<sup>3</sup>

ASTM F 1860-04. *Standard Specification for Rubber Sheet Floor Covering With Backing*<sup>3</sup>

ASTM F 1913-04. *Standard Specification for Vinyl Sheet Floor Covering Without Backing*<sup>3</sup>

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<sup>3</sup> ASTM International, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959. <http://www.astm.org>

ASTM F 2034-03e1. *Standard Specification for Sheet Linoleum Floor Covering*<sup>3</sup>

ASTM F 2195-03e1. *Standard Specification for Linoleum Floor Tile*<sup>3</sup>

CA/DHS/EHLB/R-174, Indoor Air Quality Section, Environmental Health Laboratory Branch, Division of Environmental and Occupational Disease Control, California Department of Health Services. *Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers*.<sup>4</sup>

California Code of Regulations, Title 17, Division 3, Chapter 1, Subchapter 8.5 Article 2, Consumer Products, Sections 94507-94517, *The California Consumer Products Regulations –Consumer Products*<sup>5</sup>

California Proposition 65, *Safe Drinking Water and Toxic Enforcement Act of 1986*<sup>6</sup>

CML, Leiden University Institute of Environmental Sciences, *Chain Management by Life Cycle Assessment (CMLCA)*<sup>7</sup>

Code of Federal Regulations, (7 CFR) Part 141, [Docket Number: TMD-00-02-FR], *National Organic Program*<sup>8</sup>

EN 14565, *Specification for Resilient Floor Coverings based on Synthetic Thermoplastic Polymers*<sup>9</sup>

Global Reporting Initiative (GRI), *G3 Reporting Framework*<sup>10</sup>

ILO C29 *Forced Labour Convention*, 1930<sup>11</sup>

ILO C105 *Abolition of Forced Labour Convention*, 1957<sup>11</sup>

ILO C182 *Worst Forms of Child Labour Convention*, 1999<sup>11</sup>

ISO 14001, 2004, *Environmental management systems – Requirements with guidance for use*<sup>12</sup>

ISO 14021, 1999, *Environmental labels and declarations – Self-declared environmental claims (Type II environmental labelling)*<sup>12</sup>

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<sup>4</sup> DHS-IAQ Program, 850 Marina Bay Parkway, Suite G365/EHL, Richmond, CA 94804; [http://www.dhs.ca.gov/ps/deodc/ehlb/iaq/VOCS/LORS/Section01350\\_7\\_15\\_2004\\_FINAL\\_PLUS\\_ADDENDUM-2004-01.pdf](http://www.dhs.ca.gov/ps/deodc/ehlb/iaq/VOCS/LORS/Section01350_7_15_2004_FINAL_PLUS_ADDENDUM-2004-01.pdf)

<sup>5</sup> California Air Resources Board 1001 I Street, P. O. Box 2815, Sacramento, CA 95812; <http://www.arb.ca.gov/consprod/regs/regs.htm>

<sup>6</sup> California Office of Environmental Health Hazard Assessment, P. O. Box 4010, Sacramento, CA 95812-4010; [http://www.oehha.ca.gov/prop65/prop65\\_list/Newlist.html](http://www.oehha.ca.gov/prop65/prop65_list/Newlist.html)

<sup>7</sup> Leiden University Institute of Environmental Sciences (CML), P. O. Box 9518 2300 RA Leiden, The Netherlands <http://www.leidenuniv.nl/interfac/cml/ssp/index.html>

<sup>8</sup> U. S. Government Printing Office, Washington, D. C.; 20402 <http://www.ams.usda.gov/nop/indexIE.htm>

<sup>9</sup> British Standards Group (BSI), 389 Chiswick High Road, London, W4 4AL, UK; [www.bsi-global.com](http://www.bsi-global.com)

<sup>10</sup> Global Reporting Initiative, Keizersgracht 209 1016 DT Amsterdam, The Netherlands; <http://www.globalreporting.org/Home>

<sup>11</sup> International Labour Office, 4 route des Morillons CH-1211 Geneva 22, Switzerland; <http://www.ilo.org/>

ISO 14040, 2006, *Environmental management – Life cycle assessment – Principles and framework*<sup>12</sup>

ISO 14041, 1998, *Environmental management- Life cycle assessment- Goal and scope definition and inventory analysis*<sup>12</sup>

ISO 14042, 2000, *Environmental management- Life cycle assessment- Life cycle impact assessment*<sup>12</sup>

ISO 14043, 2000, *Environmental management –Life cycle assessment – Life cycle interpretation*<sup>12</sup>

ISO 14064:1, 2006, *Greenhouse gases – Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals*<sup>12</sup>

ISO 14064:2, 2006, *Greenhouse gases – Part 2: Specification with guidance at the project level for quantification, monitoring and reporting of greenhouse gas emission reductions or removal enhancements*<sup>12</sup>

ISO 14064:3, 2006, *Greenhouse gases – Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions*<sup>12</sup>

MOEA, Minnesota Office of Environmental Assistance, *Design for Environment ToolKit*<sup>13</sup>

National Institute of Standards and Technology (NIST) *Building for Environmental and Economic Sustainability (BEES)* software<sup>14</sup>

Resilient Floor Covering Institute *FloorScore Program*<sup>15</sup>

SA8000, *Social Accountability SA8000*<sup>16</sup>

South Coast Air Quality Management District Rule 1168, *Adhesive and Sealant Applications*<sup>17</sup>

South Coast Air Quality Management District Rule 1113, *Architectural Coatings*<sup>18</sup>

United Nations Framework Convention on Climate Change, *Kyoto protocol*<sup>19</sup>

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<sup>12</sup> International Organization for Standardization (ISO), 1 ch. de la Voie-Creuse, Case postale 56, CH-1211 Geneva 20, Switzerland <http://www.iso.ch/iso/en/ISOOnline.frontpage>

<sup>13</sup> Minnesota Pollution Control Agency, 520 Lafayette Road, St. Paul, MN 55155-4194; <http://www.moea.state.mn.us/p2/DFEtoolkit.cfm>

<sup>14</sup> Building and Fire Research Laboratory NIST, 100 Bureau Drive, Stop 8600, Gaithersburg, MD 20899-8600; <http://www.bfrl.nist.gov/dae/software/bees.html>

<sup>15</sup> Resilient Floor Covering Institute, 401 East Jefferson Street, Suite 102, Rockville, Maryland 20850; <http://www.rfci.com/>

<sup>16</sup> Social Accountability International, 220 East 23<sup>rd</sup> Street, Suite 605, New York, NY 10010; <http://www.sa8000.org>

<sup>17</sup> South Coast Air Quality Management District, 21865 Copley Dr, Diamond Bar, CA 91765; <http://www.aqmd.gov/rules/reg/reg11/r1168.pdf>

<sup>18</sup> South Coast Air Quality Management District, 21865 Copley Dr, Diamond Bar, CA 91765; <http://www.aqmd.gov/rules/reg/reg11/r1113.pdf>

<sup>19</sup> United Nations Framework Convention on Climate Change, P. O. Box 260124 D-53153, Bonn, Germany; <http://unfccc.int/>

United States Environmental Protection Agency (USEPA) *National Environmental Performance Track Program*<sup>20</sup>

United States Environmental Protection Agency (USEPA) *Tool for the Reduction and Assessment of Chemical and Other Environmental Impacts (TRACI)*<sup>21</sup>

United States Environmental Protection Agency (USEPA) *Toxics Release Inventory (TRI) Program*<sup>22</sup>

### 3 Definitions

**3.1 bio-based resource:** A product component (other than food or feed) that is derived in whole or significant part from biological production operations, such as agriculture, forestry, or fisheries. A bio-based resource can be exhausted if improperly managed. However, a bio-based resource can be produced indefinitely with proper stewardship.

**3.2 environmentally preferable product:** A product that has a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose.

**3.3 green cleaning strategies:** Cleaning strategies focused on using ingredients that represent the lowest risk to workers and occupants while delivering the requisite level of cleanliness, including sanitation.

**3.4 key supplier:** A supplier of a material ingredient that comprises at least 5% by weight of a particular finished product, or that contains one or more chemicals of concern as defined by section 5.4.1a – 5.4.1e.

**3.5 life cycle assessment:** A systematic evaluation of the environmental aspects of a product through all stages of its life cycle.

**3.6 life cycle impact assessment:** A phase of life-cycle assessment aimed at understanding and evaluating the magnitude and significance of the potential environmental impact categories.

**3.7 life cycle inventory analysis:** A phase of life-cycle assessment involving compilation and quantification of inputs and outputs for a given product system throughout its life cycle.

**3.8 local employment:** Employment of workers who reside within 15 mi of the primary place of employment, or can access the primary place of employment within 30 min on public transit.

**3.9 post-consumer recycled material:** Waste material generated by households or by commercial, industrial, and institutional facilities in their role as end users of a product, which can no longer be used for its intended purpose (see ISO 14021).

**3.10 pre-consumer recycled material:** Material diverted from the waste stream during the manufacturing process. This term excludes reutilized materials such as rework, regrind, and scrap that are capable of being reclaimed within the same process that generated them.

<sup>20</sup> The Performance Track Information Center c/o Industrial Economics Incorporated, 2067 Massachusetts Avenue, Fourth Floor, Cambridge, MA 02140; <http://www.epa.gov/performancetrack/index.htm>

<sup>21</sup> U. S. Environmental Protection Agency, PA Office of Research and Development National Risk Management Research Laboratory, Sustainable Technology Division – Systems Analysis Branch (MS-466), 26 West Martin Luther King Drive, Cincinnati, OH 45268 <http://www.epa.gov/nrmrl/std/sab/traci>

<sup>22</sup> U. S. Environmental Protection Agency, National Center for Environmental Assessment, Office of Research and Development, Washington, DC 20460; <http://www.epa.gov/triinter/lawsandregs/pbt/pbtrule.htm>

**3.11 registration:** A procedure by which an independent third party gives written assurance that a system conforms to specified requirements, either mandatory or voluntary, regulated or non-regulated.

## 4 Conformance, evaluation, and assessment criteria

### 4.1 Purpose

The sustainable assessment criteria for resilient floor coverings are divided into five subject categories as follows:

- Informed Product Design;
- Intelligent Product Manufacturing;
- Long-term Value;
- Progressive Corporate Governance; and
- Innovation.

The criteria are grouped in general conformance with a product's life cycle, from design with material selection and production to manufacturing, use, and end of life. Additionally, criteria related to corporate governance are included to address issues of social responsibility.

### 4.2 Scoring methodology

For users choosing to rate the sustainability performance of products evaluated in accordance with this Draft Standard, a point-based scoring system has been developed. Presented in Annex A, this system is based on a 99-point scale (excluding optional innovation credits), with the different points for the various assessment criteria allocated as follows:

- a) Informed Product Design – 30 points
- b) Intelligent Product Manufacturing – 31 points
- c) Long-term Value – 23 points
- d) Progressive Corporate Governance – 15 points
- e) Innovation – up to 10 points

### 4.3 Procedures for labeling and reporting

#### 4.3.1 Basic principle

The methodology for assessing whether a product conforms to the product environmental and social responsibility criteria and for verifying ongoing conformance shall be documented and be of sufficient detail to provide consumer confidence that this Draft Standard has been correctly conformed to.

#### 4.3.2 Declaration of level of conformance/labeling

Achievement of conformance with the requisite criteria/points shall permit users to make the following product declarations:

- a) Sustainable Product Achievement – Conformant: Minimum 35 points
- b) Sustainable Product Achievement – Silver, Environmentally Preferable Product: Minimum 45 points
- c) Sustainable Product Achievement – Gold, Environmentally Preferable Product: Minimum 56 points



d) Sustainable Product Achievement – Platinum, Environmentally Preferable Product: Minimum 75 points

#### 4.3.3 Public reporting

Users making a declaration of conformance shall report in a publicly available document the specific criteria for which conformance is being claimed.

#### 4.3.4 Monitoring and reevaluation

Procedures shall exist, and shall be documented, to regularly monitor and measure continued conformance of products to this Draft Standard. In no event shall monitoring and reevaluation occur less frequently than once per year.

#### 4.3.5 Non-conformance and corrective and preventative action

Authority shall be assigned and supported by corporate management for identifying and investigating nonconformance, and taking the appropriate action. In establishing and maintaining procedures for investigating and correcting non-conformance, the manufacturer shall include these basic elements:

- a) Identify the cause of the non-conformance;
- b) Identify and implement the necessary corrective action;
- c) Implement or modify controls necessary to avoid repetition of the non-conformance; and
- d) Record any changes in written procedures resulting from the corrective action.

#### 4.3.6 Certification

Information on suggested parameters for certification is provided in Annex B.

## 5 Informed product design

### 5.1 Purpose

The purpose of this section is to encourage manufacturers to integrate environmental and life-cycle thinking into the product design process.

### 5.2 Enlightened design process

The intent of the criteria in this section is to encourage the understanding of environmental impacts of products by the product designers and developers.

#### 5.2.1 Environmental considerations in design

The manufacturer shall receive one point for implementing an environmental assessment program within the product design and development system. The program shall consider the environmental attributes and impacts of its products and packaging, including issues such as designing for longevity, designing for reusability, and designing for recyclability and/or compostability. The environmental assessment program shall consider environmental attributes and impacts of products and packaging across the entire product life cycle (e. g., raw material extraction, manufacturing, use, and end of life).

### 5.2.2 Life cycle assessment (LCA) or Design for Environment (DFE) assessment

By demonstrating that one of the following actions below was completed within the past three years relative to the product undergoing assessment, the manufacturer shall receive points as detailed below. A maximum of three points shall be awarded for 5.2.2.

The manufacturer shall receive one point if it completes a Design for Environment (or equivalent) assessment (see <http://www.moea.state.mn.us/p2/DFEtoolkit.cfm>).

The manufacturer shall receive two points if it completes a cradle-to-gate or cradle-to-grave ISO 14040-42-conformant life cycle assessment. Life cycle impact assessment shall be performed using a publicly available life cycle impact assessment methodology that addresses, at a minimum, the following five environmental impacts:

- Global Warming / Greenhouse Gas Loadings;
- Acidification / Acidifying Gas Loadings;
- Ozone Depletion / Release of Ozone-Depleting Chemicals;
- Photochemical Smog Formation / Ground Level Ozone Loading; and
- Eutrophication / Nitrogen Loading.

NOTE – Use of the TRACI life cycle assessment model from USEPA or the CMLCA model from the Leiden University Institute of Environmental Sciences demonstrates conformance with this criterion.

### 5.3 Environmentally sustainable material inputs

The criteria in this section are intended to ensure that the manufacturer is fully informed as to the material composition of its products, including packaging and recommended adhesive systems. The criteria are also meant to encourage the selection and use of component materials manufactured wholly or in part from environmentally sustainable inputs such as recycled materials (post-consumer and post-industrial) and bio-based resources.

#### 5.3.1 Inventory of material inputs

The manufacturer shall receive one point if it completes an inventory of material inputs for the product undergoing assessment (including packaging and recommended adhesive system). At a minimum, the inventory shall report inputs on using Chemical Abstract Service (CAS) nomenclature, with inputs classified as hazardous declared to a minimum 1000 ppm (0.1%) threshold and other inputs to 10,000 ppm (1.0%) threshold. The manufacturer shall classify the materials by their environmentally sustainable nature (e. g., recycled [pre- or post-consumer], bio-based, environmentally preferable).

#### 5.3.2 Environmentally sustainable inputs – product

For the product undergoing assessment, the manufacturer shall declare the total quantity of environmentally sustainable inputs, specified on a percentage weight basis. The manufacturer shall receive one point per 5.0% environmentally sustainable content. A maximum of eight points shall be awarded for 5.3.2.

Recycled content quantity shall be calculated as follows:

- Post-consumer recycled content shall be valued at 100% weight basis; and
- Pre-consumer recycled content shall be valued at 50% weight basis.

Bio-based resource content shall be calculated as follows:

- Bio-based resources sourced from operations operating in conformance with internationally recognized organic, sustainable agriculture, or sustainable forestry criteria (examples: USDA Organic and Forest Stewardship Council certified resources) shall be valued at 100% basis, and
- All other bio-based resources shall be valued at 50% weight basis.

Environmentally preferable content shall be calculated as follows:

- Environmentally preferable materials proven to have a lower environment footprint than a post-consumer material or sustainable/organic bio-based resource alternative shall be valued at 100% weight basis; and
- Environmentally preferable materials proven to have a lower environment footprint than a pre-consumer material or bio-based resource alternative shall be valued at 50% weight basis.

### **5.3.3 Environmentally sustainable inputs – packaging**

For the product undergoing assessment, the manufacturer shall declare the total quantity of environmentally sustainable inputs of the packaging materials specified on a percentage weight basis. The quantity shall be calculated as described in 5.3.2. The manufacturer shall receive either one point for 50% post-consumer recycled content, or two points for 75% post-consumer recycled content.

## **5.4 Human and ecologically friendly inputs**

The criteria in this section are intended to ensure that the manufacturer is fully informed as to the human and ecological hazards associated with the chemical composition of its products, including the recommended adhesive systems. These criteria are also meant to encourage the use of environmentally compatible chemicals while minimizing and eliminating the use of chemicals of concern.

### **5.4.1 Identification of use of chemicals of concern**

The manufacturer shall receive one point for creating a report classifying the material inputs for the product undergoing assessment, including recommended adhesive, by the chemical hazard classifications listed below. At a minimum, the manufacturer shall report whether the material input comprising at least 1000 ppm of the product or adhesive is classified as any of the following:

- a) International Agency on the Research of Cancer (IARC) – Group 1 – Carcinogenic to Humans;
- b) National Toxicology Program (NTP) – Known Human Carcinogen;
- c) Occupational Safety and Health Administration (OSHA) – Regulated Toxic Metal or Carcinogen;
- d) California Proposition 65 – Known to cause cancer or reproductive toxicity;
- e) USEPA Toxic Release Inventory (TRI) persistent, bioaccumulative, and toxic (PBT) chemicals– Known persistent, bioaccumulative, and toxic chemicals and compounds (a subset of the EPA TRI list of chemicals and compounds); or
- f) USEPA TRI – Complete USEPA toxic chemical list (including known PBT chemicals and compounds).

#### **5.4.2 Minimization of known chemicals of concern in product**

The manufacturer shall receive one point for demonstrating that the product does not contain any known carcinogen as listed in 5.4.1a – 5.4.1d at levels equal or greater than 1000 ppm (0.1%) or the level that requires labeling under California Proposition 65, whichever is higher.

The manufacturer shall receive one point for demonstrating that the product does not contain any known reproductive toxicant as listed in 5.4.1d at levels equal or greater than 1000 ppm (0.1%) or the level that requires labeling under California Proposition 65, whichever is higher.

The manufacturer shall receive one point for demonstrating that the product does not contain any known toxic metal as listed in 5.4.1c at levels equal or greater than 1000 ppm (0.1%).

The manufacturer shall receive one point for demonstrating that the product does not contain any known PBT chemical or compound as listed in 5.4.1e. at levels equal or greater than 1000 ppm (0.1%).

The manufacturer shall receive one point for demonstrating that the product does not contain any other toxic chemical as listed in section 5.4.1f at levels equal or greater than 1000 ppm (0.1%).

A maximum of five points shall be awarded for 5.4.2.

#### **5.4.3 Minimization of known chemicals of concern in recommended adhesive**

The manufacturer shall receive one point for demonstrating that no component listed as a carcinogen or reproductive toxicant as defined in 5.4.1a – 5.4.1d comprises more than 1% (10,000 ppm) of the total mass of the adhesive.

#### **5.4.4 Elimination of chemicals with upstream concerns**

For those material inputs present in the product at equal or greater than 5% (five percent), the manufacturer shall receive:

- One point for demonstrating that the upstream production operations do not release known PBT chemicals or compounds (see 5.4.1e) at or above USEPA reporting thresholds; and/or
- One point for demonstrating that the upstream production operations do not release any listed TRI chemicals or compounds (see 5.4.1f) at or above USEPA reporting thresholds.

### **5.5 Informed selection of suppliers**

The intent of the criteria within this section is to ensure that manufacturers are aware of the environmental performance and social accountability of their supply chains.

#### **5.5.1 Supplier environmental disclosure**

The manufacturer shall receive one point for documenting the implementation of a supplier environmental disclosure process requiring supplier disclosure of environmental performance information including, at a minimum:

- Compliance (or lack thereof) with local, regional, and national environmental requirements and report of any outstanding violations or issues of non-compliance;
- Presence (or absence) of a documented environmental management system prepared and operated in general accordance with ISO 14001;

- Release of reportable quantities of TRI PBTs;
- Use (or lack thereof) of renewable energy supplies; and
- Amount of greenhouse gas emissions.

### **5.5.2 Supplier environmental performance disclosure**

The manufacturer shall document the percent of its key suppliers that have satisfactorily conformed to the company's environmental disclosure requirements as described in 5.5.1. The manufacturer shall either receive one point if 50-74% of its key suppliers have conformed, or receive two points if 75% or more of its key suppliers have conformed.

### **5.5.3 Supplier social accountability**

The manufacturer shall receive one point for documenting the implementation of a supplier social accountability disclosure process requiring supplier disclosure of social accountability information including, at a minimum:

- Declaration of compliance with local, regional, and national labor requirements, and report of any outstanding violations or issues of non-compliance; and
- Documentation and assessment of social accountability conformance prepared in general accordance with the social indicators described in GRI, SA8000, or another comparable evaluation program.

### **5.5.4 Supplier social accountability disclosure**

The manufacturer shall document the percent of its key suppliers that have satisfactorily conformed to the company's social accountability disclosure requirements as described in 5.5.3. The manufacturer shall either receive one point if 50-74% of its key suppliers have conformed, or receive two points if 75% or more of its key suppliers have conformed.

### **5.5.5 Supplier audits**

The manufacturer may receive up to two points for supplier audits. It shall receive one point if it declares what percent of its key suppliers it has audited in the past five years to verify conformance with environmental or social accountability disclosure requirements. It shall receive a second point if it has conducted annual reviews of 10% or more of its key suppliers.

## **6 Intelligent product manufacturing**

### **6.1 Purpose**

The criteria in this section are intended to encourage manufacturers to quantify the environmental impacts from their manufacturing, and then act to reduce or remove those impacts.

### **6.2 Environmental policy and management**

The intent of these criteria is to ensure that manufacturers have a basis from which to actualize strategic environmental management within the organization.

### **6.2.1 Environmental Management System**

The manufacturer shall receive one point for implementing a formal Environmental Management System (EMS) that was prepared in accordance with the criteria set forth in ISO 14001 or USEPA's National Environmental Performance Track program.

### **6.2.2 Registered EMS system**

The manufacturer shall receive two points for documenting that its EMS system is registered with ISO 14001 or listed with USEPA's Performance Track program.

### **6.2.3 Maintaining environmental attributes through manufacturing**

The manufacturer shall receive one point for implementing a tracking system to ensure that design criteria specified in its EMS system are not cost-engineered or otherwise modified during the manufacturing process.

## **6.3 Conservation of energy resources**

A manufacturer can improve its environmental impact by means of its energy initiatives: both reduction of consumption (i. e., conservation) and selection of source (i. e., renewability). The intent of the criteria in this section is to encourage both approaches in order to reduce the environmental impacts from energy production and consumption, including resource depletion, greenhouse gas emissions, and hazardous air pollutants.

### **6.3.1 Energy inventory**

The manufacturer shall receive one point for completing an inventory of energy use that encompasses both production (including quantity and source) and product distribution (e. g., transportation fleet consumption, including owned, contracted, or otherwise supplied vehicles).

### **6.3.2 Reduction of environmental impact of energy input**

The manufacturer shall demonstrate overall reduction in the environmental impact of its energy inputs on a unit product basis, facility basis, or total manufacturing operation basis. Reduction shall be calculated from 1990 or later. Impact reduction shall be quantified as follows:

- Measured reductions in energy consumption (including that supplied as direct fuel, electricity, and/or steam); and/or
- Conversion of energy inputs from non-renewable resources (e. g., fossil fuels) to renewable alternatives.

The manufacturer shall receive points according to table 6.1 for a maximum of ten points for 6.3.2.

**Table 6.1 – Energy input percent reduction threshold and points awarded**

<b>Percent reduction threshold</b>	<b>Points awarded</b>
1%	1
2%	2
5%	3
8%	4
11%	5
15%	6
20%	7
26%	8
35%	9
51%	10

#### **6.4 Management of water resources**

The intent of the criteria within this section is to encourage the conservation of water resources and protection of water quality.

##### **6.4.1 Water use inventory**

The manufacturer shall receive one point for completing an inventory of water use including identification of quantity of water used, quantity consumed (e. g., loss through evaporation), and sources (e. g., municipal potable, direct capture, on-site wells, reclaimed waste water.).

##### **6.4.2 Reduced water consumption**

The manufacturer shall receive one point for an average 1%/year reduction of water use and consumption averaged over a given five-year period during the last ten years, on a per-unit or total basis.

##### **6.4.3 Water quality**

The manufacturer shall document that wastewater released either to a publicly owned treatment works (POTW), or directly to the environment, is of a quality equal to or better than the quality of the supplied water according to established standards. A manufacturer can earn either one or two points, as detailed below:

- The manufacturer shall receive one point if the wastewater's quality meets tertiary wastewater treatment standards; or
- The manufacturer shall receive two points if the wastewater's quality meets drinking water level standards.

#### **6.5 Optimization of material resources**

Inefficient materials selection, supplier delivery, production processes, and warehousing operations can lead to high levels of waste generation and corresponding losses in production yields. The criteria in this section are intended to encourage the maximization of yield from product raw materials and to minimize the generation of waste materials during production.

### **6.5.1 Waste minimization program**

The manufacturer shall receive one point for having a documented and operational waste minimization program that includes quantification of waste generation rate.

NOTE – For the purposes of 6.5.1, “waste” is defined as material that must be managed via landfilling or incineration.

### **6.5.2 Waste minimization**

The manufacturer shall receive either:

- One point for demonstrating a waste generation reduction rate of at least 2% per year (five-year rolling average); or
- Two points for demonstrating an annual average total waste generation rate of less than 2.0% on a weight basis.

A maximum of two points shall be awarded for 6.5.2.

### **6.5.3 Packaging minimization**

The manufacturer shall use packaging and delivery options designed to minimize waste generation during transport and installation of product. It shall receive one point if a product’s packaging weight is documented as constituting less than 2% of the product’s weight.

## **6.6 Protection of air resources**

The criteria in this section are intended to minimize or eliminate the production and release of greenhouse gases and of known PBT air contaminants.

### **6.6.1 Greenhouse gas loadings**

The manufacturer shall receive two points for completing a greenhouse gas inventory for product manufacturing operations in accordance with ISO 14064 or an equivalent standard.

### **6.6.2 Greenhouse gas reduction goals**

The manufacturer shall receive one point for establishing greenhouse gas reduction targets equal to or stricter than the relevant Kyoto protocol goals.

### **6.6.3 Greenhouse gas reductions**

The manufacturer shall demonstrate a reduction in greenhouse gas loadings on a per unit production basis.

NOTE – Consistent scope of production must be reflected, and the initial year of calculation must be 1990 or later.

The manufacturer shall receive one point for each 25% reduction. A maximum of three points will be awarded for 6.6.3.

### **6.6.4 PBT reductions**

The manufacturer shall demonstrate that emissions of PBT compounds are below reporting levels as defined under the USEPA TRI Program. The manufacturer shall receive one point for achieving this goal



in relation to emissions from its on-site activities, and/or one point for achieving the goal in relation to emissions from its supplied electricity source/s, for a maximum of two total points.

## **7 Long-term value**

### **7.1 Purpose**

The criteria in this section are intended to encourage manufacturers to maximize product longevity. The longevity of a product is dependent on its durability and performance characteristics and can reduce the replacement cycle and the resulting impact on the environment. Reclamation at the end of a product's life also reduces the environmental impact.

### **7.2 Fitness of purpose**

The criteria in this section are intended to demonstrate that the product performs at or above recognized industry performance standards, in order to ensure that the incorporation of positive environmental attributes has not been undermined by lower-quality performance. These criteria are also meant to encourage product reclamation, thereby conserving material resources and limiting the responsibility of future generations to manage today's wastes.

#### **7.2.1 Durability**

The manufacturer shall receive four points for providing documentation showing that the product performs at or above all of the following industry-recognized standards that are relevant to the specific product:

- *Vinyl Composition Floor Tile* – ASTM F 1066;
- *Sheet Vinyl Flooring* – ASTM F 1303 or ASTM F 1913;
- *Vinyl Tile* – ASTM F 1700;
- *Rubber Sheet Flooring* – ASTM F 1859 or ASTM F 1860;
- *Rubber Tile* – ASTM F 1344;
- *Linoleum Sheet Flooring* – ASTM F 2034;
- *Linoleum Tile* – ASTM F 2195; and
- *Polymeric Flooring* – EN 14565.

#### **7.2.2 Fire resistance**

The manufacturer shall receive one point for providing documentation showing that the product performs at or above industry standards as described in ASTM E 648.

#### **7.2.3 Smoke density**

The manufacturer shall receive one point for demonstrating that the product performs at or above relevant industry standards as described in ASTM E 662.

### **7.3 Protection of indoor air quality**

The intent of the criteria in this section is to demonstrate that the product and its associated infrastructure (e. g., its recommended adhesives and sealants) do not release chemicals of concern or provide a pathway for other vectors that are potentially irritating and/or harmful to installers and occupants.

#### **7.3.1 Minimal long-term indoor volatile organic compound (VOC) emissions**

The manufacturer shall demonstrate that the maximum concentration for any chemical emitted at 96 h in emissions tests (following a 10-d conditioning period) shall not result in a modeled indoor air

concentration greater than half of the chronic reference exposure level (CREL) established by California Office of Environmental Health Hazard Assessment (OEHHA). Levels of formaldehyde and acetaldehyde shall not exceed half of the established CREL for those specific chemicals. Testing shall be performed in accordance with CA/DHS/EHLB/R-174.

NOTE – Conformance to this criterion can be met through participation and conformance with the RFCI FloorScore Program.

The manufacturer shall receive two points if the product meets the aforesaid criterion, and/or one point if the recommended adhesives for the product meet the same criterion. A maximum of three points shall be awarded for 7.3.1.

### **7.3.2 *De minimis* indoor carcinogenic VOC emissions**

The manufacturer shall receive one point for demonstrating that carcinogenic or reproductive toxicant VOCs are not emitted from products at levels above the Safe Exposure Levels (SELs) as described in section 8.2 of CA/DHS/EHLB/R-174.

NOTE – FloorScore testing data can be used to perform the calculations for meeting this credit pursuant to DHS Standard Practice 174 cited above.

### **7.3.3 Minimal short-term adhesive and sealant emissions**

The manufacturer shall receive one point for demonstrating both that:

- adhesives and sealants recommended for use by the manufacturer for installers and building owners/operators meet the VOC content limits established in South Coast Air Quality Management District Rule 1168; and
- Recommended floor finishes, including coatings, stains, sealers, and shellacs, meet the VOC content limits established in South Coast Air Quality Management District Rule 1113, Architectural Coatings.

## **7.4 Compatibility with green cleaning strategies**

The intent of the criteria in this section is to ensure that resilient flooring products sold in the marketplace are compatible with, and encourage the use of, green cleaning strategies.

### **7.4.1 Elimination of chemicals of concern from cleaning products**

The manufacturer shall receive one point for demonstrating that the recommended cleaning products and maintenance procedures (including stripping and resealing) do not require the use of any of the listed chemicals of concern described in 5.4.1a – 5.4.1e, nor contain those chemicals at levels equal to or greater than 1000 ppm (0.1%).

### **7.4.2 Control of VOC emissions from cleaning products**

The manufacturer shall receive one point for demonstrating that recommended cleaning products do not exceed the maximum allowable VOC levels established for the relevant product group as described in The California Consumer Products Regulations – Consumer Products, sections 94507-94517.

## **7.5 Reclamation feasibility**

The intent of the criteria in this section is to ensure that existing and new resilient flooring products can be collected, processed, recycled, and/or composted within the existing materials recycling infrastructure.

### 7.5.1 Product recyclability or compostability

The manufacturer shall demonstrate that post-consumer collected material (including installation waste) meets at least one of the following criteria:

- a) The material can be recycled into a different product group (e. g., vinyl tile into car bumpers);
- b) The material can be composted or otherwise converted into a beneficial soil amendment (e. g., gypsum, wood dust);
- c) The material can be recycled into a similar product (e. g., vinyl tile into vinyl tile); or
- d) The material can be recycled into a complementary product group (e. g., flooring: vinyl tile into carpet tile).

For the recyclability claims above, the manufacturer shall demonstrate that the recycled material can comprise at least five percent (5%) by weight of the new product. For the compostability claim above, the manufacturer shall demonstrate that any product being composted conforms to ASTM D 6400.

The manufacturer shall receive either:

- One point for conformance to 7.5.1a or 7.5.1b; or
- Two points for conformance to 7.5.1c or 7.5.1d.

A maximum of two points will be awarded for 7.5.1.

### 7.5.2 Post-consumer collection operations

For products that have been available for sale for five years or more, the manufacturer shall demonstrate that the product (including installation waste) is being collected for recycling or composting through ongoing collection operations. For new products (e. g., those with a market presence of less than five years), the manufacturer shall demonstrate preparation and implementation of a post-consumer collection and recovery plan. The manufacturer shall receive either one point for demonstrating conforming activities serving at least 10 million people, or two points for demonstrating conforming activities serving at least 20 million people.

## 7.6 Product reclamation and stewardship

The intent of this section is to encourage the diversion of flooring materials from landfilling, and to promote the redirection of material resources into new products instead.

### 7.6.1 Post-consumer reclamation

The manufacturer shall document and report the product post-consumer reclamation rate of products. The rate shall be calculated as follows:

$$\text{Reclamation Rate} = \frac{\text{kgs of all post-consumer product reclaimed (annually)}}{\text{kg of annual production of product being certified}}$$

The manufacturer may include any or all of the following in reclamation calculation:

- Material recovered via flooring manufacturer's on-site post-consumer collection operations and composted or recycled into new products;
- Purchase of post-consumer flooring material for manufacture into new flooring or alternative products; and/or

- Other financial or contractual instruments that can be quantified as to annual weight of flooring product recycled or composted.

The manufacturer shall receive one point for 1 or 2% post-consumer reclamation; two points for 3 or 4% post-consumer reclamation; or, at a maximum, three points for 5% or greater post-consumer reclamation.

#### **7.6.2 Corporate investment in reclamation**

The manufacturer shall receive points for the percent of its revenue that it commits to documented activities associated with improving the reclamation rate of its products. Points shall be awarded as follows:

- The manufacturer shall receive one point for 0.05% of revenue invested (annual average, maximum five-year averaging);
- The manufacturer shall receive two points for .10% of revenue invested (annual average, maximum five-year averaging); or
- The manufacturer shall receive three points for .15% or more of revenue invested (annual average, maximum five-year averaging).

A maximum of three points shall be awarded for 7.6.2.

Qualifying activities include research and development in materials processing and new product development (using reclaimed materials); purchase and installation of processing equipment to be used wholly or in part for the processing of reclaimed flooring materials, including composting grinding equipment; and other quantifiable financial support of post-consumer material collection, processing, and manufacturing activities (including ongoing labor expenses).

## **8 Progressive corporate governance**

### **8.1 Purpose**

The criteria in this section are intended to encourage corporate social responsibility in the forms of providing a desirable workplace, being involved in the local community, and demonstrating financial health.

### **8.2 Public commitment to sustainability**

The criteria in this section are intended to demonstrate corporate/organizational leadership in public disclosure and transparency of key environmental and social accountability objectives and data.

#### **8.2.1 Preliminary disclosure**

The manufacturer shall receive one point for releasing of one of the following publicly:

- Annual findings under company's registered or generally conforming ISO 14001 Environmental Management System;
- Product life-cycle assessment findings through participation in the Building for Economic and Environmental Sustainability (BEES), managed by the National Institute of Standards and Technology (NIST);

- Product life-cycle assessment findings prepared in conformance with ISO 14040-43 and independently peer reviewed;
- The company's USEPA Performance Track Annual Performance Report; or
- The company's social accountability performance as quantified under SA 8000 or equivalent.

The information shall be released in one of the following forms:

- Part of the company's annual report, available to all who request a copy; or
- Online. e. g., downloadable from the company's website.

### **8.2.2 Comprehensive disclosure**

The manufacture shall receive one point for demonstrating one of the following:

- Public release of annual sustainability report per the guidelines of the Global Reporting Initiative of the United Nations Environment Program; or
- Public release of annual environmental and social accountability targets and achievements.

The information shall be released in one of the two forms described in 8.2.1.

## **8.3 Employer responsibility**

### **8.3.1 Employee turnover**

The manufacturer shall receive one point for quantifying and reporting the average employee turnover rate (per year or two-year rolling average).

### **8.3.2 Employee injury rate**

The manufacturer shall receive one point for quantifying and declaring the average employee injury rate (per year or two-year rolling average) as required by the governing reporting agency. At a minimum, the report shall include occupational accidents, injuries, illnesses, and disease

### **8.3.3 Right to collective bargaining**

The manufacturer shall receive one point for documenting the right of all personnel to independent and free association and to bargain collectively.

### **8.3.4 Prevention of discrimination**

The manufacturer shall receive one point for demonstrating that it does not engage in or support discrimination in hiring, remuneration, access to training, promotion, termination, or retirement based on race, cast, national origin, religion, disability, gender, sexual orientation, union membership, or political affiliation.

### **8.3.5 Prohibitions on forced labor**

The manufacturer shall receive one point for demonstrating that it does not engage in or permit the use of forced or compulsory labor (per ILO conventions C29 and C105) at its facilities or those of its key suppliers.

### **8.3.6 Prohibitions on child labor**

The manufacturer shall receive one point for demonstrating that it does not operate facilities or source supplies from countries that have not ratified ILO Convention 182.

### **8.3.7 Living wages / remuneration**

The manufacturer shall demonstrate compliance with all applicable legal minimum standards. The manufacturer shall receive one point for demonstrating both of the following for employees/workers other than management personnel:

- Wages are sufficient to meet basic needs of personnel and provide some discretionary income; and
- Wages are paid directly to employees, with full disclosure of any required or authorized deductions (e. g., taxes, health care benefits, retirement investments).

## **8.4 Community engagement**

### **8.4.1 Community financial investment**

The manufacturer shall declare, as percent of total revenue and percent of net income, the average three-year rolling monetary value provided to the local community by means of local taxes paid plus direct contributions (e. g., grants and investments). Employee salaries and other employee remuneration are expressly excluded from this calculation. For the purposes of this criterion, “local community” means a geographical unit generally defined as within 15 mi of the primary production facility. Thus, taxes or investments made at a state or provincial level do not qualify for inclusion unless specifically designated for allocation to the local community. The manufacturer shall receive one point for investing 1% or more of its total revenue to the local community.

### **8.4.2 Employee participation**

The manufacturer shall receive one point for documenting company-supported employee activities within the community. Company-supported employee activities consist of community service work performed during paid time off for that purpose, excluding activities deemed political in nature.

### **8.4.3 Local recruiting**

The manufacturer shall receive one point for documenting net local employment (full-time equivalent basis) and local sourcing expenditures (U. S. dollars spent or equivalent) per year or three-year rolling average.

## **8.5 Financial leadership**

### **8.5.1 Profitability**

The manufacturer shall receive one point for demonstrating continued year-over-year profitability.

### **8.5.2 Investment in research and development**

The manufacturer shall receive one point for devoting 2.5% or more of its annual revenue to research and development activities intended to support the continuing viability of the company, including investment in emerging technologies.

### **8.5.3 Vendor/supplier satisfaction**

The manufacturer shall receive one point for reporting the percentage of contracts that were paid in accordance with agreed terms, excluding agreed penalty arrangements. Terms may include scheduling of payments, form of payment, and other conditions.

## **9 Innovation**

The criteria in this section are intended to give manufacturers the opportunity to be awarded points for exceptional performance above the requirements set forth in previous sections of this Draft Standard, and/or for innovative performance in categories not specifically addressed by this Draft Standard. The number of points awarded shall be determined on a case-by-case basis. A maximum of ten points shall be awarded for innovation under this section.

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## Annex A (normative)

### Scoring system Sustainable product assessment – resilient floor coverings

Criteria	Description	Maximum Points
<b>Section</b>	<b>Informed Product Design</b>	<b>30</b>
<b>5.2</b>	<b>Enlightened Design Process</b>	<b>(3)</b>
5.2.1	Environmental Considerations in Design	1
5.2.2	LCA or DfE Assessment	2
<b>5.3</b>	<b>Use of Environmentally Sustainable Material Inputs</b>	<b>(11)</b>
5.3.1	Inventory of Material Inputs	1
5.3.2	Use of Sustainable Inputs – Product	8
5.3.3	Use of Sustainable Inputs – Packaging	2
<b>5.4</b>	<b>Use of Human and Ecologically Friendly Inputs</b>	<b>(9)</b>
5.4.1	Identification of Use of Chemicals of Concern	1
5.4.2	Minimization/Elimination of Use of Known Chemicals of Concern in Product	5
5.4.3	Minimization/Elimination of Use of Known Chemicals of Concern In Recommended Adhesive	1
5.4.4	Elimination of Chemicals with Upstream Chemical Concerns	2
<b>5.5</b>	<b>Informed Selection of Suppliers</b>	<b>(7)</b>
5.5.1	Supplier Environmental Disclosure	1
5.5.2	Supplier Environmental Performance Disclosure	2
5.5.3	Supplier Social Accountability	1
5.5.4	Supplier Social Accountability Disclosure	2
5.5.5	Supplier Auditing by Manufacturer	1
<b>Section</b>	<b>Intelligent Product Manufacturing</b>	<b>31</b>
<b>6.2</b>	<b>Environmental Policy and Management</b>	<b>(4)</b>
6.2.1	Environmental Management System	1
6.2.2	Registered EMS System	2
6.2.3	Maintaining Environmental Attributes Through Manufacturing	1
<b>6.3</b>	<b>Conservation of Energy Resources</b>	<b>(11)</b>
6.3.1	Energy Inventory	1
6.3.2	Reduction of Impact of Energy Input	10
<b>6.4</b>	<b>Management of Water Resources</b>	<b>(4)</b>
6.4.1	Inventory of Water Use	1
6.4.2	Reduced Water Consumption	1
6.4.3	Improvement of Water Quality	2
<b>6.5</b>	<b>Optimization of Material Resources</b>	<b>(4)</b>
6.5.1	Waste Minimization Program	1
6.5.2	Waste Minimization Achievement	2
6.5.3	Packaging Minimization	1
<b>6.6</b>	<b>Protection of Air Resources</b>	<b>(8)</b>
6.6.1	Quantification of Greenhouse Gas Loadings	2
6.6.2	Greenhouse Gas Reduction Goals	1
6.6.3	Greenhouse Gas Reductions	3
6.6.4	PBT Reductions	2

<b>Section</b>	<b>Long-term Value</b>	<b>23</b>
<b>7.2</b>	<b>Fitness of Purpose</b>	<b>(6)</b>
7.2.1	Durability	4
7.2.2	Fire Resistance	1
7.2.3	Smoke Density	1
<b>7.3</b>	<b>Protection of Indoor Air Quality</b>	<b>(5)</b>
7.3.1	Minimal Long Term Indoor VOC Emissions	3
7.3.2	<i>De Minimis</i> Indoor Carcinogenic VOC Emissions	1
7.3.3	Minimal Short Term Adhesive, Sealant, and Floor Coating Emissions	1
<b>7.4</b>	<b>Compatibility With Green Cleaning Strategies</b>	<b>(2)</b>
7.4.1	Elimination of Chemicals of Concern From Cleaning Products	1
7.4.2	Control of VOC Emissions from Cleaning Products	1
<b>7.5</b>	<b>Reclamation Feasibility</b>	<b>(4)</b>
7.5.1	Product Recyclability or Compostability	2
7.5.2	Post-Consumer Collection Operations	2
<b>7.6</b>	<b>Product Reclamation and Stewardship</b>	<b>(6)</b>
7.6.1	Post-Consumer Reclamation	3
7.6.2	Corporate Investment in Reclamation	3
<b>Section</b>	<b>Progressive Corporate Governance</b>	<b>15</b>
<b>8.2</b>	<b>Public Commitment to Sustainability</b>	<b>(2)</b>
8.2.1	Preliminary Disclosure	1
8.2.2	Comprehensive Disclosure	1
<b>8.3</b>	<b>Employer Responsibility</b>	<b>(7)</b>
8.3.1	Employee Turnover	1
8.3.2	Employee Injury Rate	1
8.3.3	Right to Collective Bargaining	1
8.3.4	Prevention of Discrimination	1
8.3.5	Prohibitions on Forced Labor	1
8.3.6	Prohibitions on Child Labor	1
8.3.7	Living Wages / Remuneration	1
<b>8.4</b>	<b>Community Engagement</b>	<b>(3)</b>
8.4.1	Community Financial Investment	1
8.4.2	Employee Participation	1
8.4.3	Local Recruiting	1
<b>8.5</b>	<b>Financial Leadership</b>	<b>(3)</b>
8.5.1	Profitability	1
8.5.2	Investment in Research & Development	1
8.5.3	Vendor/Supplier Satisfaction	1
<b>Section</b>	<b>Innovation</b>	<b>10</b>

## **Annex B<sup>23</sup>** **(informative)**

### **Key elements of a certification program for Environmentally preferable and sustainable resilient floor coverings**

#### **B.1 General**

Declaring conformance to this Draft Standard identifies that a manufacturer designs, develops, and creates products in a manner that is considered to be in some measure sustainable and/or environmentally preferable. Conformance to this Draft Standard alone does not imply certification. The manufacturer can provide additional public confidence regarding the attainment of these goals by undertaking independent conformity assessment (certification).

#### **B.2 Product certification process**

##### **B.2.1 Selection of conformity assessment body**

The manufacturer identifies a certification organization to perform the conformity assessment of the product assessment process for conformance with this Draft Standard.

##### **B.2.2 Conformity assessment to standard**

The certifying organization performs the necessary functions to determine whether the manufacturer's operations and product(s) conform to the specified criteria. This may involve activities such as an audit of the manufacturing facility, review of the product formulation, testing, or review of documentation for assessing conformance with the specified criteria.

##### **B.2.3. Issuance of product certification**

If the product has been demonstrated adequately to meet the specifications described in this Draft Standard, and any issues of nonconformance have been addressed, the certifying organization provides a product certification to the manufacturer. This may include the provision of documentation of certification of the product to the manufacturer, as well as inclusion of the product on any publicly available lists of certified products maintained by the certifying organization. The certifying organization instructs the manufacturer regarding appropriate use of the registered certification mark of the certifying organization.

##### **B.2.4 Monitoring of product conformance**

At intervals determined by the certifying organization, the continued conformance of the certified product to the specified criteria is monitored using periodic facility audits, periodic retesting, or both.

#### **B.3 Suggested requirements for certifying organizations**

A certifying organization offering a certification program for environmentally preferable and sustainable resilient floor coverings should conform to the requirements of ISO/IEC Guide 65, General requirements for bodies operating product certification systems.

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<sup>23</sup> The information contained in this Annex is not part of this American National Standard (ANS) and has not been processed in accordance with ANSI's requirements for an ANS. Therefore, this Annex may contain material that has not been subjected to public review or a consensus process. In addition, it does not contain requirements necessary for conformance to this Draft Standard.

**B.3.1 Marking of certified product**

The certifying organization should specify requirements for marking of certified products. Requirements for product marking should include, at a minimum:

- Certified products should bear a registered certification mark of the certifying organization; and
- Each product should bear a statement of achievement status (e. g., silver, gold.)

**B.3.2 Listing certified companies**

The certifying organization should maintain a published listing of all certified products. The listing format should include the following minimum information:

- company name and address;
- product description;
- trademark / formulation designation; and
- each environmentally preferable and sustainable product claim that has been successfully evaluated and is certified.

**B.3.3 Audits**

The certifying organization should conduct actual physical audits of all facilities and productions locations of the certified company at least annually.

**B.3.4 Corrective action**

The manufacturer should take corrective action for all items of nonconformance found during audits and re-evaluation including:

- provisions for review and authorization for modifications to formulations;
- modifications to certified product formulations; and
- documentation and authorization of the modification maintained on file.

**B.3.5 Enforcement**

To preserve the integrity of the registered certification mark of the certification organization, enforcement action should be taken by the certifier for the following:

- use of the registered trademark of the certifying organization on a non-certified product;
- general nonconformance;
- unauthorized change to certified products; and
- unauthorized shipment or disposal of products placed on hold.

**B.3.6 Appeals**

The certifying organization should have provisions for an appeals process as requested by any party directly affected by a decision, action, or inaction of the certifying organization.

**B.3.7 Complaints**

The certifying organization should provide for the following:

- investigation of complaints related to certified products;

- misuse of the registered trademark of the certifying organization by a certified company;
- use/misuse of the registered trademark of the certifying organization by a non-certified company; and
- certified company retention and disclosure of complaint records and remedial actions for certified products.

#### **B.3.8 Advertising**

A certifying organization should provide guidance to certified manufacturers regarding proper use of the registered trademark of the certifying organization on sales literature, technical publications, promotional materials, packaging, catalogs, and advertising.

#### **B.3.9 Records**

A certifying organization should have provisions for verification of complete certified company records including:

- purchased materials and ingredients; and
- production, shipment, and inventory.

#### **B.3.10 Public notice**

Provisions for issuing a public notice for nonconformance to any requirement of certification should be maintained by the certifying organization.

#### **B.3.11 Confidentiality**

The certifying organization should have a documented policy of non-disclosure of any confidential information supplied to the certifying organization by the company regarding the product, including formulations, components, processes, ingredients, and the identity of the company's suppliers and distributors.

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## Standards and Criteria<sup>24</sup>

The following standards and criteria established and adopted by NSF as minimum voluntary consensus standards are used internationally:

- 2 Food equipment
- 3 Commercial warewashing equipment
- 4 Commercial cooking, rethermalization, and powered hot food holding and transport equipment
- 5 Water heaters, hot water supply boilers, and heat recovery equipment
- 6 Dispensing freezers
- 7 Commercial refrigerators and freezers
- 8 Commercial powered food preparation equipment
- 12 Automatic ice making equipment
- 13 Refuse processors and processing systems
- 14 Plastics piping system components and related materials
- 18 Manual food and beverage dispensing equipment
- 20 Commercial bulk milk dispensing equipment
- 21 Thermoplastic refuse containers
- 24 Plumbing system components for recreational vehicles
- 25 Vending machines for food and beverages
- 29 Detergent and chemical feeders for commercial spray-type dishwashing machines
- 35 High pressure decorative laminates (HPDL) for surfacing food service equipment
- 36 Dinnerware
- 37 Air curtains for entrances in food and food service establishments
- 40 Residential wastewater treatment systems
- 41 Non-liquid saturated treatment systems
- 42 Drinking water treatment units – Aesthetic effects
- 44 Residential cation exchange water softeners
- 46 Evaluation of components and devices used in wastewater treatment systems
- 49 Class II (laminar flow) biosafety cabinetry
- 50 Circulation system components and related materials for swimming pools, spas/hot tubs
- 51 Food equipment materials
- 52 Supplemental flooring
- 53 Drinking water treatment units – Health effects
- 55 Ultraviolet microbiological water treatment systems
- 58 Reverse osmosis drinking water treatment systems
- 59 Mobile food carts
- 60 Drinking water treatment chemicals – Health effects
- 61 Drinking water system components – Health effects
- 62 Drinking water distillation systems
- 143 Environmentally preferable products – Hard surface cleaners
- 169 Special purpose food equipment and devices
- 170 Glossary of food equipment terminology
- 173 Dietary supplements
- 177 Shower filtration systems – Aesthetic effects
- 184 Residential dishwashers
- 222 Ozone generators
- 245 Wastewater treatment systems – Nitrogen reduction
- 14159-1 Hygiene requirements for the design of meat and poultry processing equipment
- 14159-2 Hygiene requirements for the design of hand held tools used in meat and poultry processing equipment
- 14159-3 Hygiene requirements for the design of mechanical belt conveyors used in meat and poultry processing equipment

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<sup>24</sup> The information contained in this Standards and Criteria page is not part of this American National Standard (ANS) and has not been processed in accordance with ANSI's requirements for an ANS. Therefore, this Standards and Criteria page may contain material that has not been subjected to public review or a consensus process. In addition, it does not contain requirements necessary for conformance to this Draft Standard.



***THE HOPE OF MANKIND rests in the  
ability of man to define and seek out  
the environment which will permit him  
to live with fellow creatures of the  
earth, in health, in peace, and in  
mutual respect.***