



*NSF International Standard /
American National Standard*

NSF/ANSI 347 - 2012a

Sustainability Assessment for Single Ply Roofing Membranes



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for Sustainability –

Sustainability assessment for single ply roofing membranes

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Foreword²

This American National Standard, NSF/ANSI 347 Sustainability Assessment for Single Ply Roofing Membranes Standard, has been developed as part of the ongoing efforts of a number of interested parties to document and improve the sustainability profile of roofing membranes using established and/or advanced scientific principles, practices, materials, and standards. Stakeholders involved in developing the Standard included membrane manufacturers, industry consultants, architects and engineers that specify roofing materials, trade associations, national regulatory agencies that regulate either environmental practices or roofing specifications, and non-governmental organizations. The scope of this standard includes, but is not limited to, Ethylene Propylene Diene Terpolymer (EPDM), Ketone Ethylene Ester (KEE), Poly Vinyl Chloride (PVC), Thermoplastic Polyolefin (TPO), and Polyisobutylene (PIB) products. The standard is applicable to products manufactured in one or multiple facilities, and in one or multiple countries.

The purpose of the Sustainability Assessment for Single Ply Roofing Membranes Standard is to establish consistent requirements for sustainable roofing membrane products. These requirements are intended to form the basis of conformity assessment programs, such as third-party certification or registration.

The Sustainability Assessment for Single Ply Roofing Membranes Standard has been designed, in part, to meet the following goals:

- Facilitate communication of information that is verifiable and accurate about the environmental and social impacts associated with the production and use of Single Ply Roofing Membranes.
- Provide transparency and offer credibility for manufacturers in making claims of environmental preferability and sustainability, and to harmonize the principles and procedures used to support such claims.
- Provide framework for assessing the sustainability attributes of Single Ply Roofing Membranes that allows the tracking of incremental changes in the product over time and the comparison of different products that perform similar functions.

These requirements are intended to form the basis of conformity assessment programs, such as third-party certification or registration.

This version of the Standard incorporates the following revisions:

Issue 2

Normative references have been updated. Sections 5.7, 5.8 and 6.5, and 7.3.2.1, 7.3.2.3 and 7.4.1 have been modified to improve clarity.

Suggestions for improvement of this Standard are welcome. This Standard is maintained on a Continuous Maintenance schedule and can be opened for comment at any time. Comments on this Standard should be sent to Chair, Joint Committee on Sustainable Roofing, NSF International at ncss@nsf.org or c/o Standards Department, P.O. Box 130140, Ann Arbor, Michigan 48113-0140, USA.

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NSF International Standard for Sustainability –

Sustainability assessment for single ply roofing membranes

1 General

The overall purpose of this Standard is to facilitate communication of information that is verifiable and accurate, about the environmental and social impacts associated with the production and use of single ply roofing membranes. 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 continuous market-driven improvement.

This Standard is intended to provide transparency, and offer credibility 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 framework for assessing the sustainability of single ply roofing membranes. Sustainability related information should be used to guide 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 single ply roofing membranes, and provides a means to track incremental changes to the products' sustainability profile. This Standard is intended to provide a framework to compare and assess the sustainable nature of different products performing similar functions.

This Standard is intended to be used by product manufacturers, suppliers, and others interested in understanding the sustainability performance of single ply roofing membranes. Independent auditors, certification bodies and environmental labeling organizations are also potential users of this Standard for its use in supporting market based environmental and sustainability claims. This Standard should also be used by purchasers and consumers, including building owners and designers who wish to ensure the accuracy of manufacturer claims relative to the sustainable nature of their products.

1.1 Scope

This Standard establishes an approach to the evaluation of the sustainability of single ply roofing membranes. The Standard includes criteria across the product life cycle from raw material extraction through manufacturing, use, and end-of-life management.

As used in this Standard, "Single Ply Roofing Membrane" includes, but is not limited to, EPDM (Ethylene Propylene Diene Terpolymer), KEE (Ketone Ethylene Ester), PVC (Poly (Vinyl Chloride), TPO (Thermoplastic Polyolefin), and PIB (Polyisobutylene) products. The Standard is applicable to products manufactured in one facility or multiple facilities, one country or multiple countries.