



Designation: D7120/D7120M – 10 (Reapproved 2022)

Standard Guide for Evaluation and Preparation of Roof Membranes for Coating Application¹

This standard is issued under the fixed designation D7120/D7120M; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This guide covers the procedures for evaluating and preparing non-aggregate surfaced membranes for the application of a coating. It does not address design, construction, or installation issues regarding the roof assembly or the roof membrane. It is not an application guide for roof coatings.

1.2 The values stated in either SI units or inch-pound units are to be regarded separately as standard. The values stated in each system may not be exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in nonconformance with the standard.

1.3 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.4 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Terminology

2.1 Definitions:

2.1.1 *adequate drainage, n*—the drainage condition in which consideration has been made for all loading deflections of the deck, and additional roof slope has been provided to ensure drainage of the roof area within 48 h of rainfall.

2.1.2 *contaminant, n*—any substance which will adversely affect the adhesion of a coating.

2.2 Contaminant List:

2.2.1 *air/water-borne surface contaminant, n*—any of several types of external source contaminants that accumulate on

top surface of a roof. Surface contaminants come from one of the following sources: (1) particulate and liquid emissions from building interior operations, (2) airborne vegetable and mineral particles, and (3) oils, greases, and chemicals from industrial and food service operations.

2.2.2 *chemical barrier, n*—a barrier formed by reactive materials either acid, alkali, or solvent, which inhibits the adhesion of surface coatings.

2.2.3 *exudate, n*—a glossy film that forms on the surface of an atactic polypropylene (APP) membrane. Exudates inhibit coating adhesion and they can bleed through and stain the coating surface.

2.2.4 *loose mineral granules, n*—see *mineral granules*, disattached mineral granules.

2.2.5 *moisture, n*—surfaces to be coated must be clean and dry.

2.2.6 *organic barrier, n*—see *organic*, any of several biological growths, usually algae or fungus, which act as a barrier between an APP roof membrane and a coating.

2.2.7 *release and/or anti-block agent, n*—see *parting agent*, any of several mineral or waxy materials which are typically applied to an APP sheet during the manufacturing process to prevent the sheet from sticking to itself while in the roll.

2.2.8 *surface oxidate, n*—a barrier film, which forms on the surface of an unprotected smooth APP sheet during weathering.

3. Significance and Use

3.1 This guide outlines the general procedures necessary to evaluate and prepare a roof membrane for the application of a liquid surface coating.

3.2 This guide is not all inclusive; this guide is intended to supplement detailed instructions from manufacturers and safety requirements required by law.

4. General Surface Conditions

4.1 Lack of adequate drainage will have an adverse effect on roof components and will lead to premature failure of liquid-applied coatings.

¹ This guide is under the jurisdiction of ASTM Committee D08 on Roofing and Waterproofing and is the direct responsibility of Subcommittee D08.20 on Roofing Membrane Systems.

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