



Standard Guide for Specification, Purchase, Installation and Maintenance of Poured-In-Place Playground Surfacing¹

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1. Scope

1.1 This guide covers information with regard to the design, manufacture, installation, and maintenance of poured-in-place playground surfaces.

NOTE 1—This document is a guide and not intended to be used as a specification; it should be used for educational purposes.

1.2 This guide outlines the issues of compliance with existing standards, durability, and functional longevity.

1.3 This guide reviews issues such as edge treatment, abutting surfaces, and combinations with other surfaces designed for circulation or protective surfaces.

1.4 This guide presents maintenance considerations and general procedures that should be followed by the owner/operator.

1.5 This guide outlines aging considerations such as loss of impact absorption, cracking, shrinkage, heaving, and how to prevent, accommodate, or rectify those issues.

1.6 This guide presents warranty considerations.

1.7 This guide does not imply that an injury cannot be incurred when the surface system is compliant with the standards referred to in this guide.

1.8 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

1.9 *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 and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 ASTM Standards:²

F1292 Specification for Impact Attenuation of Surfacing Materials Within the Use Zone of Playground Equipment

F1951 Specification for Determination of Accessibility of Surface Systems Under and Around Playground Equipment

2.2 CSA Standard:³

CSA Z614 Children's Playspaces and Equipment

3. Terminology

3.1 Definitions:

3.1.1 *aliphatic prepolymer*—prepolymer which does not contain any 1,3,5-cyclohexatrien group.

3.1.1.1 *Discussion*—Generally highly color stable when exposed to UV radiation, no yellowing.

3.1.2 *ambient grinding*—process that takes raw rubber products and processes it to rubber crumb, chips, buffings, and so forth that is at the temperature generated by the grinding equipment or in the location of production.

3.1.3 *aromatic prepolymer*—hydrocarbons that are made from only hydrogen and carbon and contain a prepolymer which contains one or more 1,3,5-cyclohexatriene group.

3.1.3.1 *Discussion*—Aromatic prepolymer are generally susceptible to change when exposed to UV and moisture. These changes can be seen as a yellowish shading or “ambering” of the top surface, especially when encapsulating rubber crumb that is grey, light blue, blue, eggshell, teal, and so forth.

3.1.4 *asphalt, adjacent*—bituminous bound material that is used as a curb or walkway and comes into contact with the poured-in-place surface.

3.1.4.1 *Discussion*—The materials and compaction shall conform to local engineering practices and have a mechanical compaction of no less than 98 % standard proctor density. The edge of the asphalt at the junction with the poured-in-place

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

³ Available from Canadian Standards Association (CSA), 5060 Spectrum Way, Mississauga, ON L4W 5N6, Canada, <http://www.csa.ca>.