



ASTM F-1292 COMPLIANCE GUIDE

What does ASTM compliance tell us?



ASTM F-1292 compliance helps prevent head injuries.

Testing using the methods described in ASTM F1292 will provide a critical height rating of the surface. This height can be considered an approximation of the fall height below which a life-threatening head injury would not be expected to occur.

The fall height of a piece of equipment is the distance between the highest designated play surface on a piece of equipment and the protective surface beneath it.

How do I know if my surfacing is compliant?

For **unitary surfacing**, ask the manufacturer of the surfacing to provide a copy of documentation that specifically states it is compliant with ASTM F-1292 up to specific stated fall height. This can occasionally be downloaded from their website as well.

This documentation generally includes:

- A visual description of the surfacing (tiles, poured in place, turf over poured in place, etc.)
- A specific maximum critical fall height determined during testing (Ex: 6 ft).
- A statement that says the surfacing is in compliance with ASTM F-1292.



IMPORTANT: Keep that document in your files where you can easily retrieve it to share during licensing inspections!

For **loose fill materials**, measure the depth of the surfacing, measure the greatest fall height of the equipment, and compare it with ASTM standards to ensure it is compliant. It needs to be compliant throughout the entire fall zone of the equipment.

For example, fall zones for climbing equipment should extend at least 6' in all directions for preschoolers and school agers and 3' in all directions for infants and toddlers. Given that, the resilient surfacing should meet the required depths for that entire space, not just directly underneath the climbing equipment.

Consult the *Playground Best Practices* resource for more information on specific fall zone requirements for different types of equipment.

Shredded/recycled rubber or wood chips protect to the greatest fall heights.

Compressed Surface Depth	Surfacing Material	Protects to Fall Height of
6 Inches	Shredded Recycled Rubber	10 Feet
9 Inches	Wood Chips	10 Feet
9 Inches	Wood Mulch (non CCA)	7 Feet
9 Inches	Pea Gravel	5 Feet
9 Inches	Sand	4 Feet

Adapted from Handbook for Public Playground Safety (p.11, by the United States Consumer Product Safety Commission, 2008, approved in 2010.

Types of Surfacing Not Compliant

- Grass
- Dirt
- Outdoor carpet
- Concrete
- Foam Puzzle Tiles
- Individual tiles at ends of slides/under swings, with no other resilient surfacing
- Astro turf with no unitary surfacing under it
- Unitary surfacing in poor condition with visible damage, such as holes, cracks, or bubbling.



ASTM F-1292 SAMPLE COMPLIANCE LETTER FOR UNITARY SURFACING

Compliance statements for unitary surfacing can vary in how they look among manufacturers. Although they should all contain the same information about ASTM compliance, they can look like forms, letters, or simple statements. All are acceptable, as long as they are clearly from the manufacturer, describe the surfacing installed on the playground, list the critical fall height, and include the ASTM F-1292 statement of compliance. Compliance statements are easiest to get at the time of installation.

After installation, unitary surfacing must be taken care of and remain in good condition to continue to meet compliance requirements. If there is visible damage within fall zones, the surfacing will not be compliant with ASTM F-1292 any longer.



Keep the ASTM F-1292 compliance document in your files. You will need it during licensing visits.



IPEMA Impact Attenuation Report – ASTM F1292-22

Participant: Polyloom dba Tencate Grass
 Main Office Address: 1131 Broadway St. Dayton, TN 37201
 Phone: 423.413.7028
 Manufacturing Location ID: Dayton, TN
 Commercial Name of product: Playground MP CLR PERM (400053-CP)
 Date of Manufacture: 02/06/2023
 No. of samples submitted: See Comments

TUV Report No.: 72186757-5a
 Report Date: 2/14/2023
 Test Date: 2/14/2023
 Initial: []
 Follow up: [] Ref Job:
 Sample Receipt Date: 1/27/2023
 Ambient Air Temperature: 22.2 °C
 Humidity: 25 %

Test Equipment:
 Alpha Automation, Triax, TUV System 5:
 Alpha Automation, Triax, TUV System 7:
 Accelerometer ID: PLYP00226
 Accelerometer Calibration Date: 7/18/2022
 Environmental Chamber No.: PLYP00069
 Calibration Due Date: 8/30/2023
 Environmental Chamber No.: AE-029
 Calibration Due Date: 8/30/2023

Loose Fill Material Sample Description:
 Engineered Wood Fiber:
 Loose Fill Wood:
 Rubber Nuggets:
 Rubber Buffings:
 Sand:
 Gravel:
 Other:
 Un-compacted Depth: _____ Inches
 Compacted Depth: _____ Inches

Unitary Sample Description:
 Tiles:
 Poured in Place:
 Other:
 Total Thickness: _____
 Top Layer: _____
 Base Layer: _____

Turf System Sample Description:
 Turf:
 Pad:
 Aggregate:
 Infill:
 Turf Pile Height: 1.325 Inches
 Pad Thickness: 2.0 Inches
 Aggregate: 4.0 Inches
 Infill Amount: 2.0 Lbs./Sq. Ft.
 Infill Type: anivotti

Comments:
 1.) Customer submitted: 1(8) whole pieces of turf, twenty two (22) square pieces of turf, fifty two (52) 2.0 inch center pads, twenty seven (27) 2.0 inch square pads, twenty seven (27) 2.0 inch interlock pads, and 1(10) lbs. 2.) Playground MP CLR PERM (1.325in Pile Height) - infilled with 2.0 lb per sq. ft. of Envirolite #10 (gran size #100 mesh) - over 2.0 inch Tiger Playground Pad - overlying 4in. of compacted aggregate. Total system depth/thickness of 7.325in. 3.) Level Favorable Impact Location was Center Turf/Center Pad. 4.) Level Favorable Impact Location report is 72186757-5a.

The maximum critical fall height of the above described sample was determined to be: 8 Ft. ←

The results reported herein reflect the performance of the above described samples at the time of testing and at the temperature(s) reported. The results are specific to the described samples. Samples of surfacing materials that do not closely match the described samples will perform differently. The following data sheet provides an accurate representation of the test results.

Sample in compliance with ASTM F1292-22 at the temperature and rating specified? Yes ← No

Signature: Patrick Ashley Title: Project Engineering Technician Date: 2/14/2023
 Reviewed by: Timothy Franklin Title: Project Engineering Technician Date: 2/22/2023