

Maintaining Safe Play Environments – Keep Your Playgrounds Compliant and Fun!



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- Certified Playground Safety Inspector (since 1998)
- Senior Risk Management Consultant
- Community Insurance Corporation

1) Age Appropriate Equipment

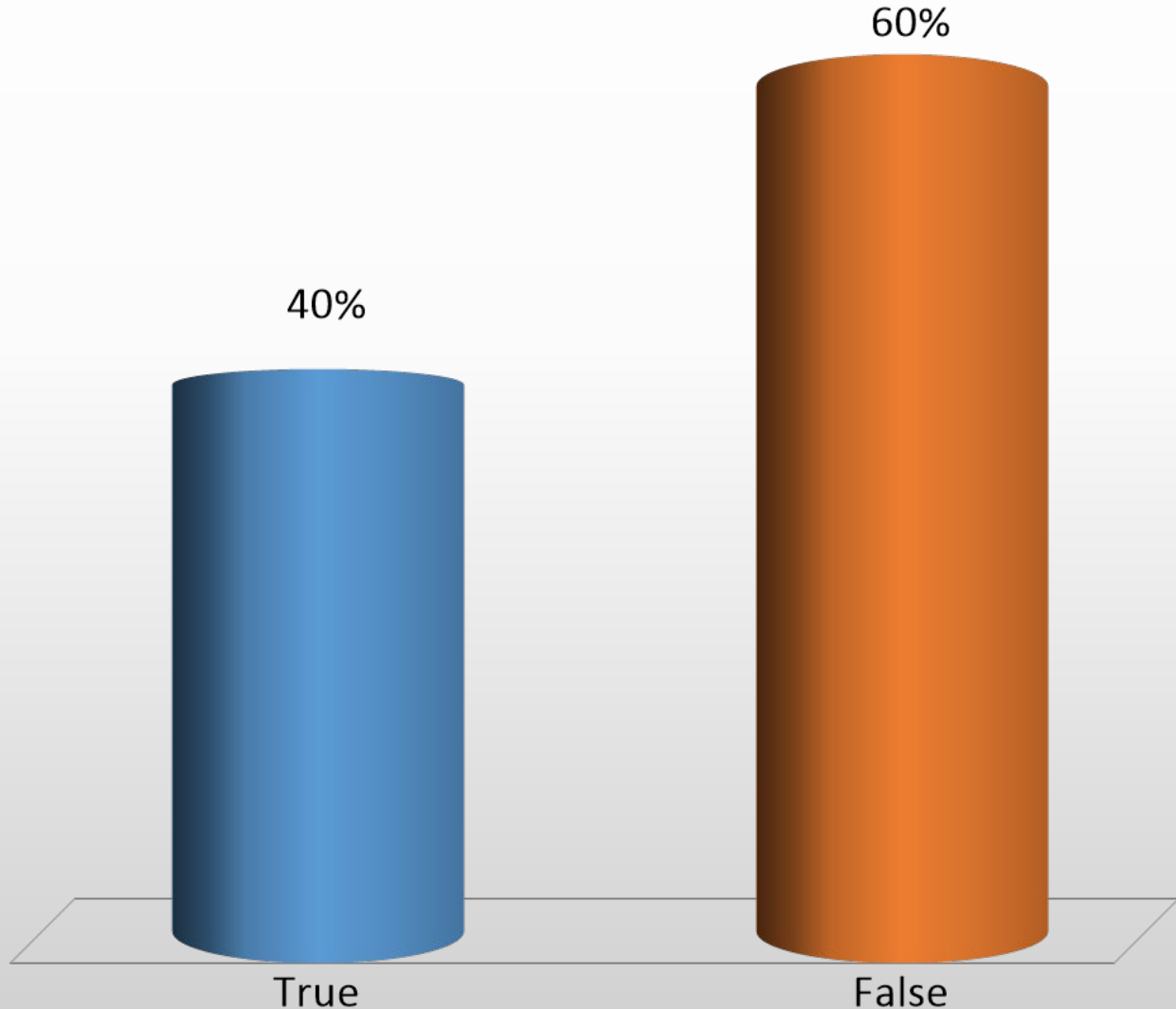
- All playground equipment is broken down into three age categories
- Toddler Age 6 Months - 23 Months Old
- Pre-School Age Children 2-5 Year Olds
- School Age Children 5-12 Year Olds
- Adult Exercise Equipment, ASTM F3101-15 (2015)

Pre K (4K) & Early Childhood/Headstart only play on 2-5 or 2-12 year old equipment!



Do you know what age group your equipment is designated for?

- A. True
- B. False

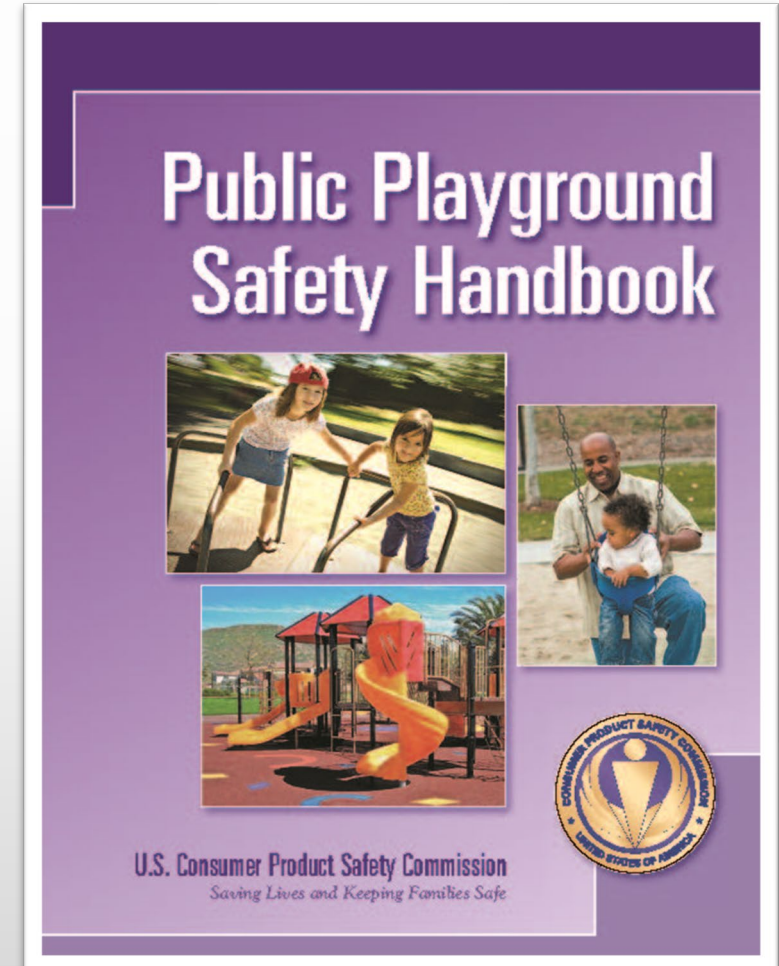


2) Playground Purchases



Certified
Playground
Safety Inspector

- Choosing a Playground Equipment Supplier
- Sales Staff **MUST BE** Current Certified Playground Safety Inspectors (CPSI)
- <https://www.nrpa.org/certification/CPSI/>
- Sales Staff should be knowledgeable regarding the latest ASTM F1487-17 American National Voluntary Standard, other applicable ASTM Standards & CPSC Federal Guideline, ADA Accessibility Guidelines **LAW**



Purchases

- Sales Person/Manufacturer Representative is a CPSI (Certified Playground Safety Inspector)
- Building Principal, Facilities & Business Office assist PTO/PTA in playground vendors and potential purchases.
- Ideal purchase for a school playground for hundreds of students at one time.
- Playground Supervisor Visibility



Poor Supervisor Visibility





IPEMA Manufacturer Certification

Benefits of Certification

In the interest of public safety, IPEMA provides a certification program for public play equipment and surfacing materials. The program validates a participant's product(s) to one or more of the standards referenced below. TÜV SÜD America serves as the third-party validator for the program.

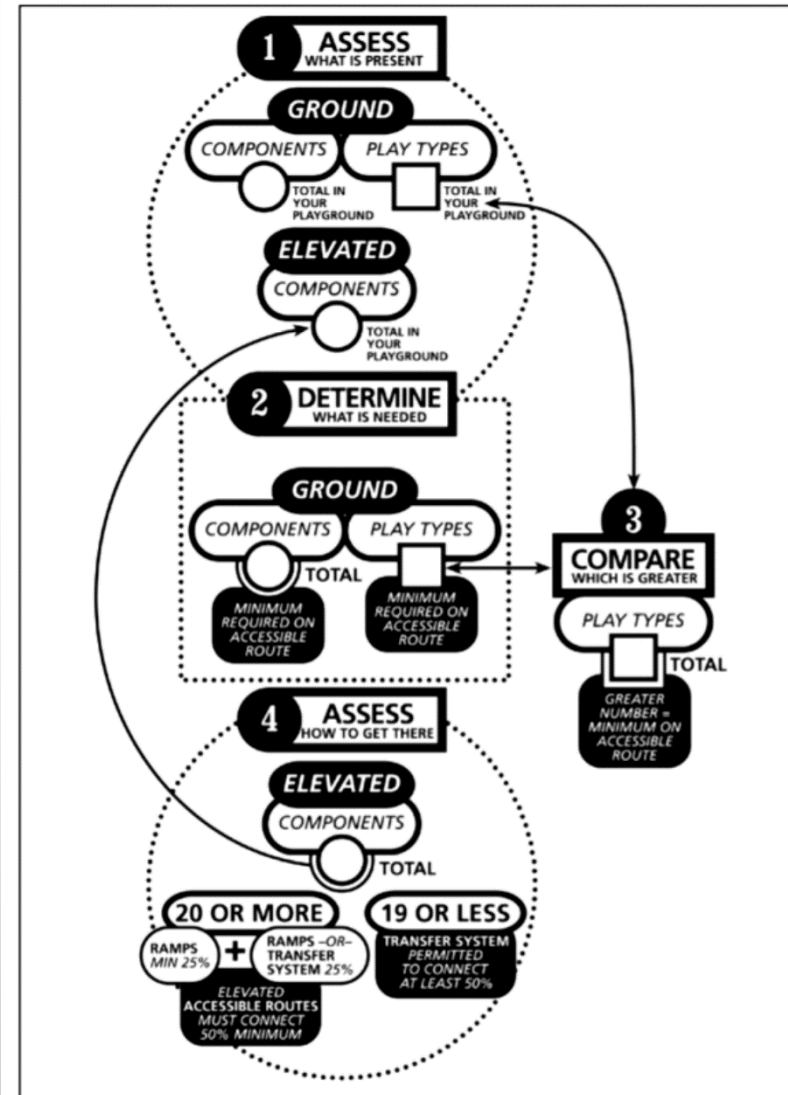
- ASTM F1487-17
- CAN/CSA-Z614-14 (R2019)
- ASTM F1292-18 (Section 4.2)/ASTM F3351-19
- ASTM F2075-15
- ASTM F3012-14

Learn more about these standards and IPEMA's certification program.

- IPEMA-International Play Equipment Manufacturers Association
- ipema.org
- IPEMA's mission is to promote play, encourage safety, and provide certification programs, for playground environments.
- IPEMA's core values are to uphold consistency of compliance and to demonstrate professionalism and integrity.

3) ADA Accessibility Guidelines (ADAAG)

- Any time new playground equipment installed or addition of equipment to existing playground.
- Federal Register October 2000
- [play-areas.pdf \(access-board.gov\)](http://play-areas.pdf(access-board.gov))
- Approach, Enter & Use
- Minimum Number of accessible play components both ground level and elevated play components
- Firm, stable & slip resistant accessible route (60-inch pathway)
- IPEMA Checklist for Access



ADA Accessibility Example – *Proposal & Documentation*

ADA ACCESSIBILITY GUIDELINE (ADAAG CONFORMANCE)		
NUMBER OF PLAY EVENTS:	33	
NUMBER OF ELEVATED PLAY EVENTS:	8	
NUMBER OF ELEVATED PLAY EVENTS ACCESSIBLE BY RAMP:	PROVIDED: 0	REQ'D: 0
NUMBER OF ELEVATED PLAY EVENTS ACCESSIBLE BY TRANSFER SYSTEM:	PROVIDED: 5	
NUMBER OF ELEVATED PLAY EVENTS ACCESSIBLE BY RAMP OR TRANSFER SYSTEM:		REQ'D: 4
NUMBER OF GROUND LEVEL PLAY EVENTS:	PROVIDED: 25	REQ'D: 3
NUMBER OF TYPES OF GROUND LEVEL PLAY EVENTS:	PROVIDED: 8	REQ'D: 3

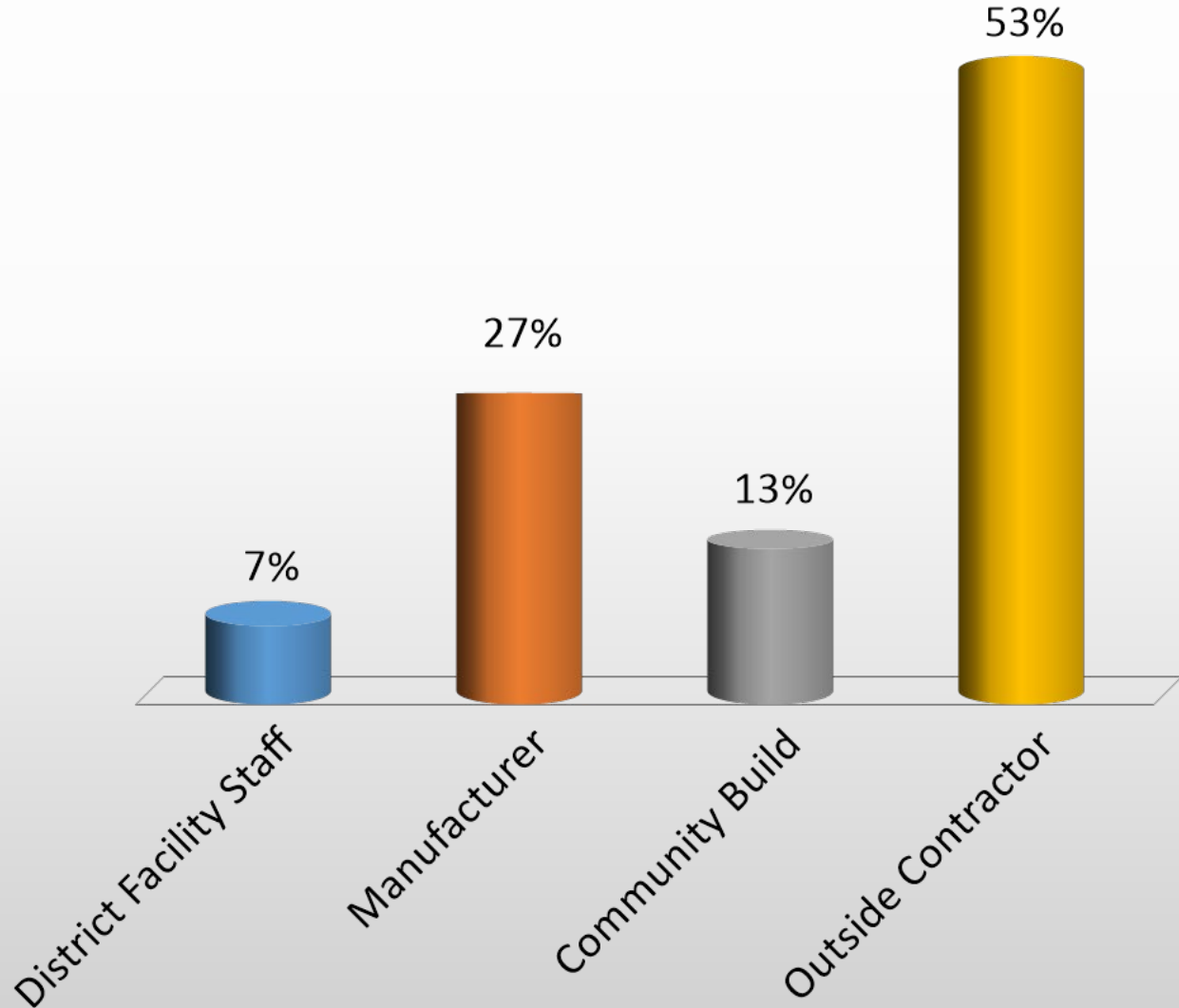
4) Playground Installations

- National Playground Contractors Association, Inc.
<https://www.playground-contractors.org/qualified-contractors>
- Installation completed by professional contractors.
- If a community build then a playground rep must be on site during entire install. AUDIT conducted at end of install to ensure safety.
- If an item is installed incorrectly, head entrapments and other hazards may exist.



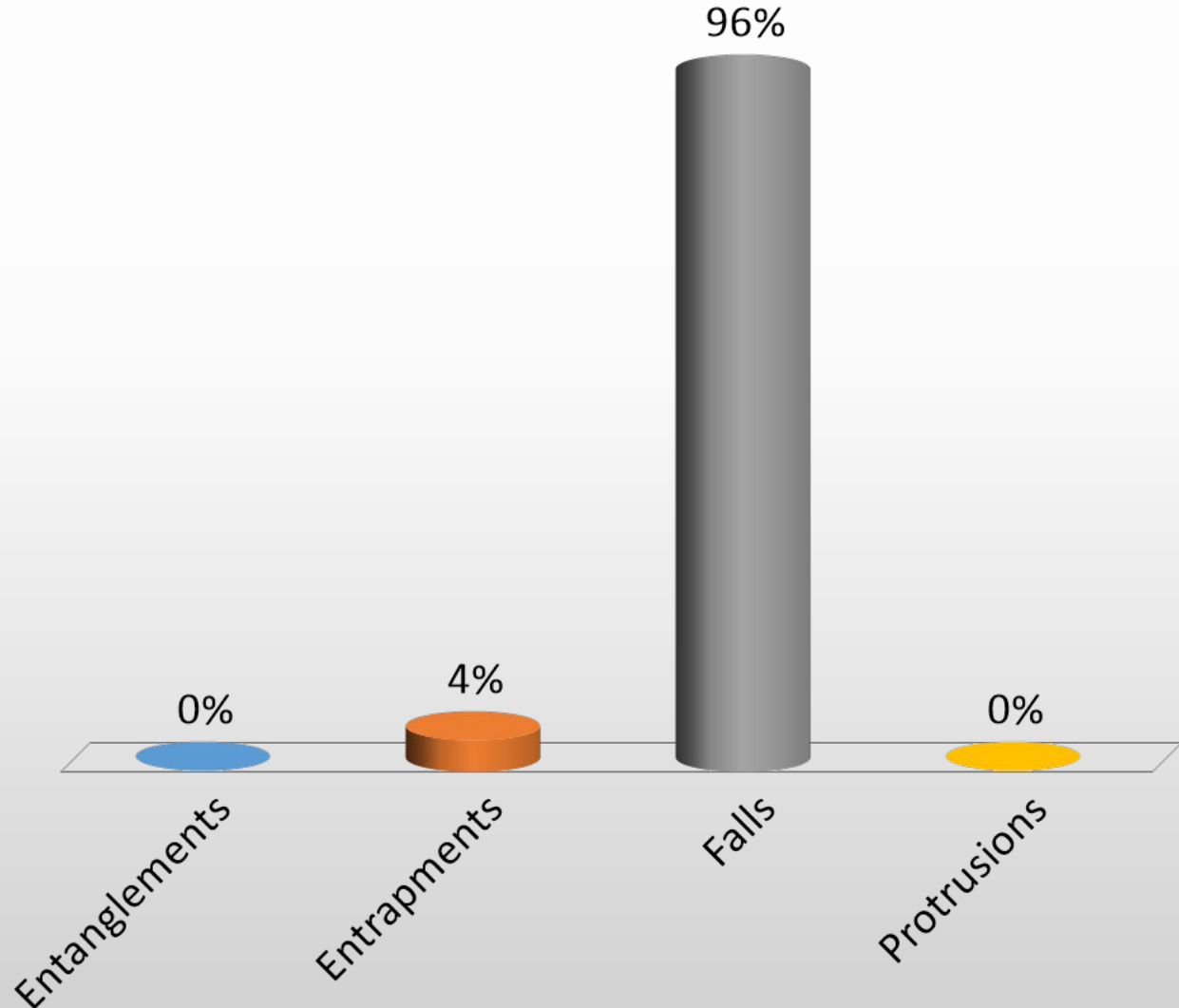
Who installs your district new playgrounds?

- A. District Facility Staff
- B. Manufacturer
- C. Community Build
- D. Outside Contractor



What type of injury is the leading cause of the greatest number of injuries?

- A. Entanglements
- B. Entrapments
- C. Falls
- D. Protrusions



5) Falls are Cause of Most Injuries – Surface Materials

- 79% of all playground injuries are Falls
- Falls are the MOST COMMON cause of injury on PUBLIC Playgrounds
 - 68% are falls to surface
 - 10% are falls to other parts of the equipment
 - 1 % are falls to unknown

Strangulation is the Cause of Most Deaths!!!!



Various Surfacing Materials- ASTM Certified???

Loose Fill

- Wood Mulch (not CCA treated - weekly rake)
- Wood Chips
- Engineered Wood Fibers
- Sand (weekly rake so soft)
- Pea Gravel
- Shredded Tires

Unitary Materials

- Rubber Mats, rubber tiles and poured rubber
- See CPSC Table



ASTM Related Surface Standards

- ASTM F2223 – Standard Guide for ASTM Standards on Playground Surfacing
- The number immediately following the designation indicates the year of the original adoption or the year of the last revision.
- Records: Owner/Operator must obtain and inspect a copy of the test certificate/report (F1292, F1951 or F2075) and satisfy themselves that the tested product and proposed product for installation are one and the same.

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

F1487 Consumer Safety Performance Specification for Playground Equipment for Public Use

F1918 Safety Performance Specification for Soft Contained Play Equipment

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

F2075 Specification for Engineered Wood Fiber for Use as a Playground Safety Surface Under and Around Playground Equipment

F2479 Guide for Specification, Purchase, Installation and Maintenance of Poured-In-Place Playground Surfacing

2.2 *Canadian Standard:*

CSA Z614 Children's Playspaces and Equipment³

2.3 *Government Publications:*

CPSC (US Consumer Product Safety Commission) Handbook for Public Playground Safety, Pub. No. 325⁴

US Code of Federal Regulations Part 3, 36 CFR Part 1191 Americans with Disabilities Act Accessibility Guidelines: Play Areas: (Final Rule)

ASTM F1292 Surface Material & ASTM F1951 ADA Accessible-Contract with Vendor & Warranty



Appropriate Surfacing

- Any material tested to ASTM F1292, including unitary surfaces, engineered wood fiber, etc.
- Pea gravel
- Sand
- Shredded/recycled rubber mulch
- Wood mulch (not CCA-treated)
- Wood chips



Inappropriate Surfacing

- Asphalt
- Carpet not tested to ASTM F1292
- Concrete
- Dirt
- Grass
- CCA treated wood mulch

Table 2 – Minimum Compressed Loose-fill surfacing depths

Inches of	Loose-Fill Material	Protects to Fall Height (Feet)
6	Shredded/ recycled rubber	10
9	Sand	4
9	Pea Gravel	5
9	Wood Mulch (non-CCA)	7
9	Wood Chips	10

Safety Surfacing ADA Accessibility –ASTM F1951



Poured in Place Rubber (PIP)



Tiles (TIL)



Engineered Wood Fiber (EWF)



Hybrid Surface Systems (HYB)

Rubber Mulch

Rubber Mulch Toxicity

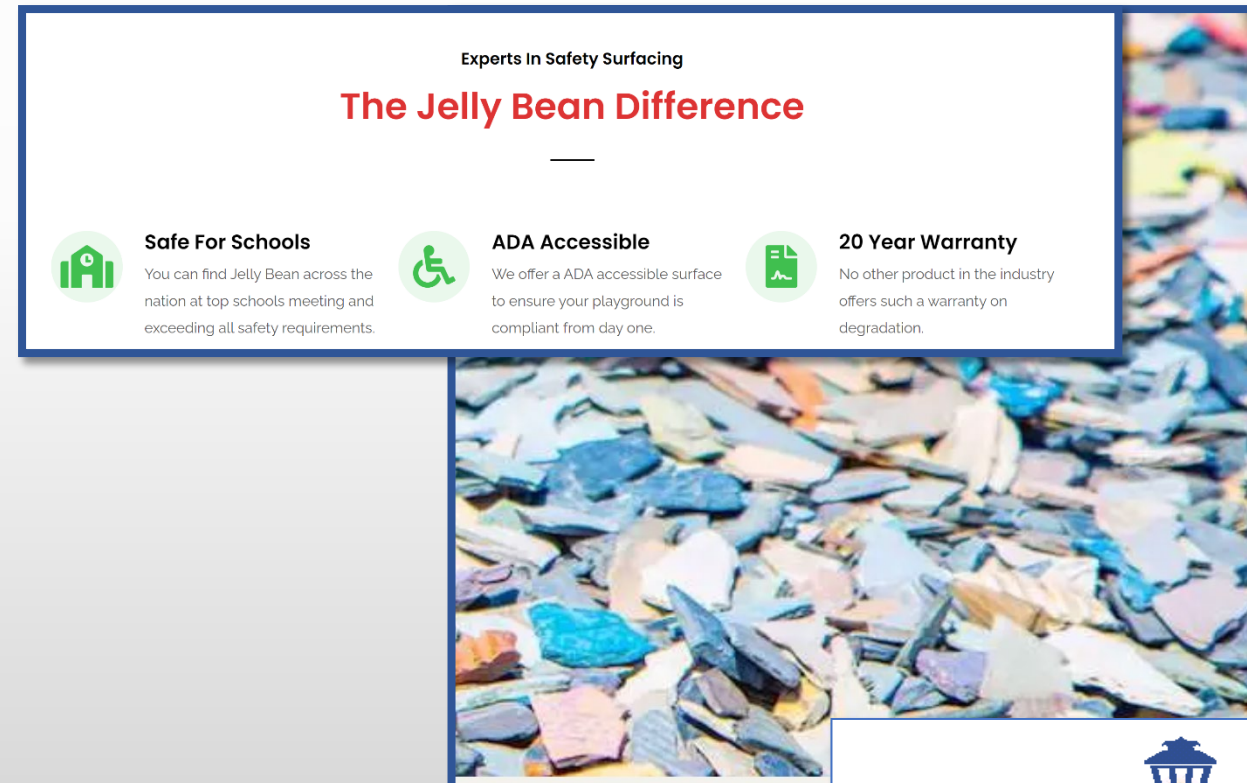
EPA Study 2019

[July 2019 Report: Tire Crumb Rubber Characterization | Safer Chemicals Research | US EPA](#)



The screenshot shows the EPA website header with the logo and navigation links: Environmental Topics, Laws & Regulations, About EPA, and a search bar for EPA.gov. Below the header, it lists 'Related Topics: Safer Chemicals Research' with 'CONTACT US' and 'SHARE' options. The main heading is 'July 2019 Report: Tire Crumb Rubber Characterization'. Under 'Key Takeaways:', there are two bullet points: 'EPA is releasing a new report that addresses exposure (that is, chemicals and how people come in contact with these) to tire crumb rubber on synthetic turf fields. This report is not a risk assessment, nor can the information be used to identify a level above which health effects could occur.' and 'In general, the findings from the report support the premise that while chemicals are present as expected in the tire crumb rubber, human exposure appears to be limited based on what is released into air or simulated biological fluids.'

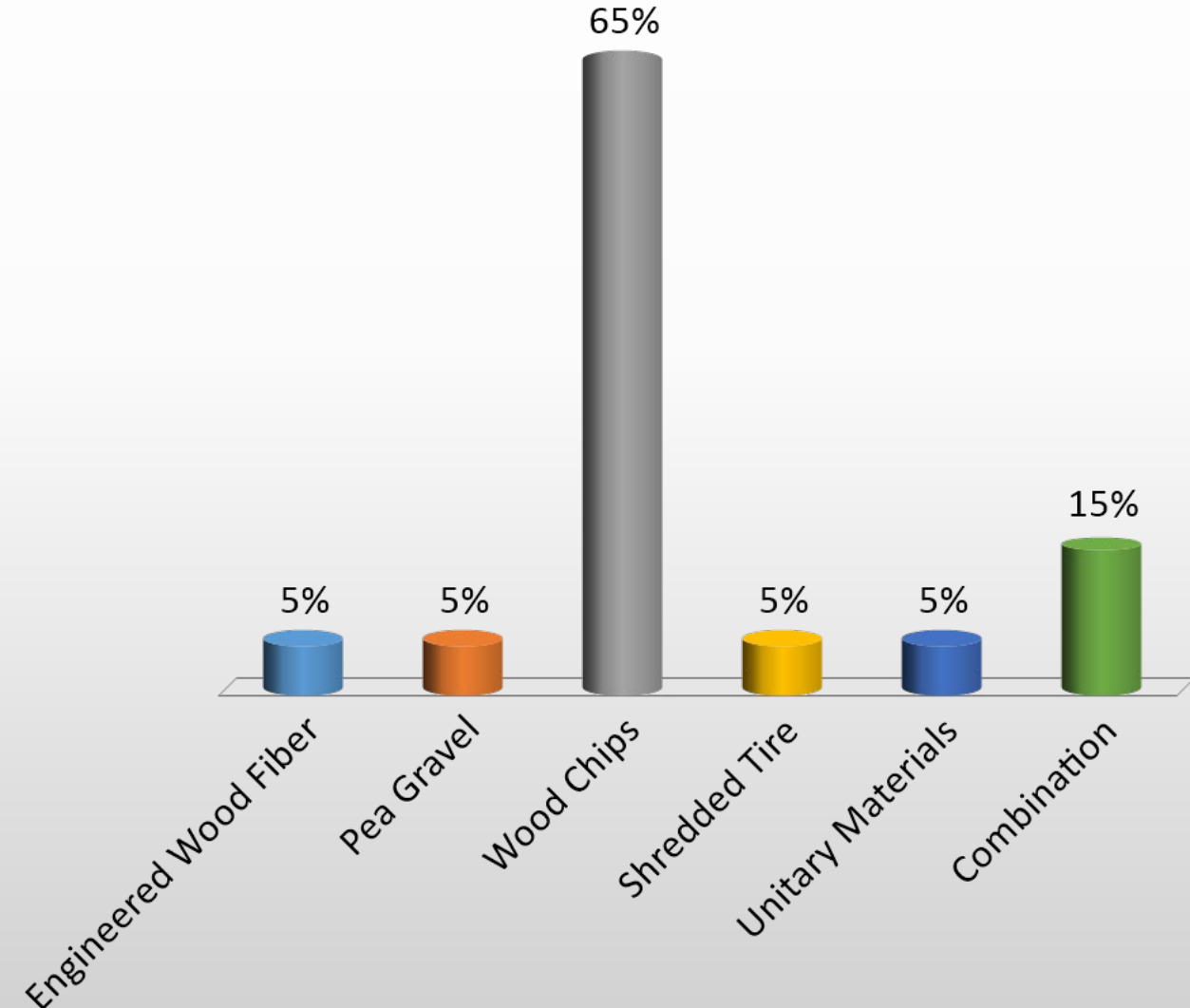
Jelly Bean Rubber Mulch



The advertisement features a background image of colorful rubber mulch. At the top, it says 'Experts In Safety Surfacing' and 'The Jelly Bean Difference'. Below this, three key benefits are listed with icons: 'Safe For Schools' (house icon) stating 'You can find Jelly Bean across the nation at top schools meeting and exceeding all safety requirements.', 'ADA Accessible' (wheelchair icon) stating 'We offer a ADA accessible surface to ensure your playground is compliant from day one.', and '20 Year Warranty' (document icon) stating 'No other product in the industry offers such a warranty on degradation.'

What surface material(s) does your district install?

- A. Engineered Wood Fiber
- B. Pea Gravel
- C. Wood Chips
- D. Shredded Tire
- E. Unitary Materials
- F. Combination



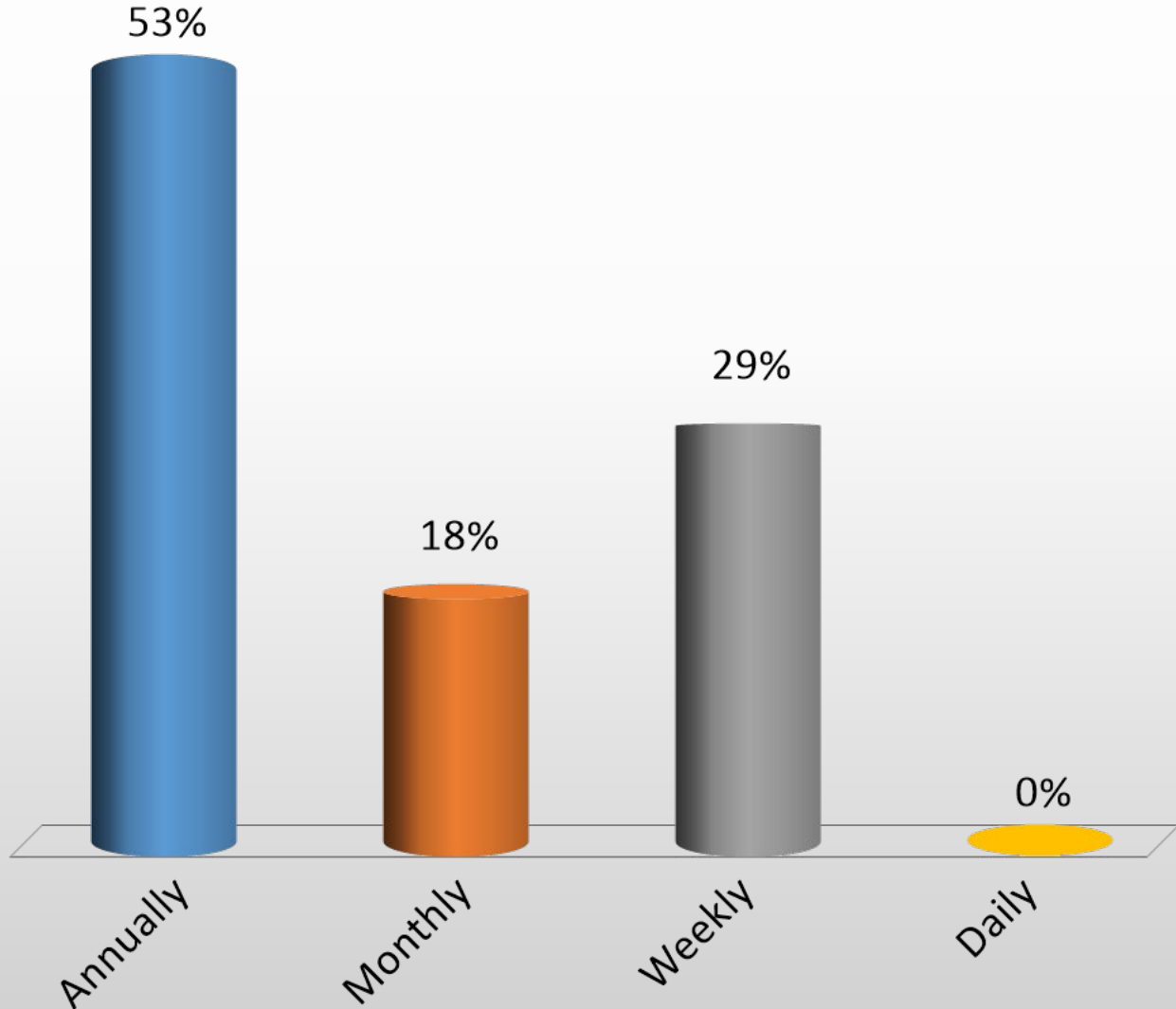
7) Playground Safety & Maintenance Training



- 36% of all injuries are due to Poor Maintenance, 6% poor installation & 4% poor layout
- Every Building Custodian
- Specific Guidelines for surface material
- Specific requirements for particular pieces of equipment: Swings, slides, track rides, horizontal ladders, protrusions, etc.
- Playground Maintenance Course, NRPA.org

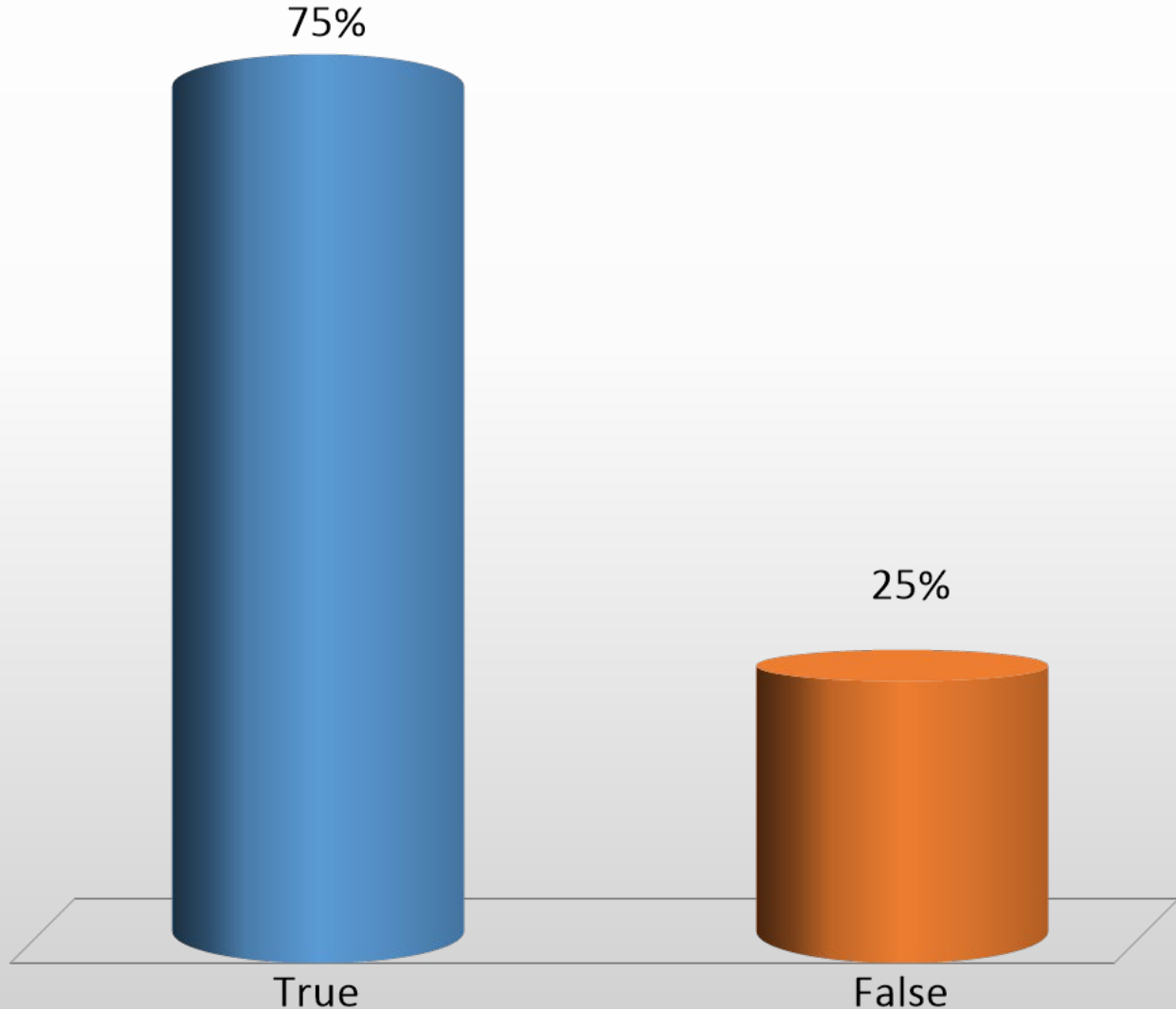
How often does facility staff conduct a playground inspection?

- A. Annually
- B. Monthly
- C. Weekly
- D. Daily



Does your facility staff document the inspections?

- A. True
- B. False



8) Inspections/Repairs & Recordkeeping

- Performed by trained staff – Building Custodian
- **Documented** with easy-to-use checklists/forms
- Should be based upon Manufacturer's recommendations and entities policies and procedures
- Tailored to equipment and conditions identified in audit
- Based on frequency of use, type and age of equipment and local climate.
- Low Frequency (seasonally, in-depth inspection with focus on preventative maintenance)
- Document work orders
- High Frequency (usually done frequently, identifies change with focus on routine and remedial maintenance) Includes surfacing materials



Audit vs. Maintenance



Audit vs. Maintenance

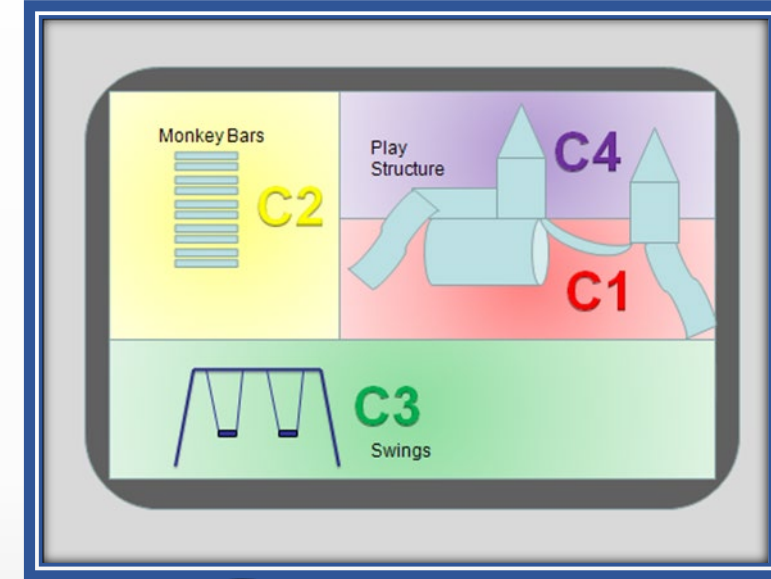


Broken Collar



9) Playground Supervision Training & Guidelines

- Same ratio of adults on the playground as there are in the classroom (National Program for Playground Safety, playgroundsafety.org)
- Children should be visible to supervisors at all times –Scanning!
- Zoning
- Supervisors should be trained and follow the same rules
- Emergency plan (notice of insect sting allergies, etc.)
- Emergency items: radio, whistle, phone, powderless gloves, band aids, bull horn, etc.
- Supervisors trained in first aid and CPR, & bloodborne pathogens
- Consistency of Rule Enforcement!



NPPS Playground Supervision Kit



10) Incident Investigation & Review



- Incident Report Completed by Playground Supervisory Staff
- Building Principal Signature
- Incidents reviewed by Building & District Safety Committee
- Identify hazards and Trends
- Risk control through risk reduction and prevention

Last Week of April

NATIONAL PLAYGROUND SAFETY WEEK

In 1997, the [National Program for Playground Safety \(NPPS\)](#) founded the National Playground Safety Week to occur each April, giving the nation a time to yearly assess playground safety and express gratitude to those who are making playgrounds safer. State governors are encouraged to proclaim National Playground Safety Week each year. The number of states participating has grown from 2 to as many as 45. There were 30 states participating in 2010.¹



Challenging people to become involved in playground safety, NPPS offers numerous suggestions to promote participation in the National Playground Safety Week:

- Send letters to state governors encouraging them to proclaim National Playground Safety Week
- Promote playground safety issues in the local news media
- Create and hang posters in schools and community areas outlining [S.A.F.E.](#) playground practices
- Complete playground equipment safety checks and evaluations
- Challenge schools to an injury-free week on the playground

Questions & Answers

Thank You for your Time!

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