



Playground Maintenance Handbook



Playground Maintenance Checklist

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|-----------|---------------|-------|-------|
| Location: | Inspected By: | Date: | Time: |
|-----------|---------------|-------|-------|

| OK | Not OK | Condition | Recommendation/ Action Taken |
|----|--------|-----------|------------------------------|
|----|--------|-----------|------------------------------|

- Survey area for dangerous trash such as, large rocks, broken bottles and glass, nails, etc.

- Are there any trip hazards identified?

- Are large puddles forming after rain? Is the play area draining properly?

- Assess poured in place rubber surfacing. Are there holes in the surfacing? Are granules starting to get loose and flake off?

- How is the wood chip level? At what depth is it currently? Does it need to be raked or spread to different areas to provide fall attenuating properties in key areas?

- Are rubber tiles stick up or have they moved?

- Inspect equipment for signs of stress or deterioration. Document with a photo and description.

- Are all footers still intact and holding equipment firmly in the ground?

- Are all "S" hooks closed?

- Are there missing caps or plugs in slides or other equipment?

- Look for any sharp points, especially where rusted or deteriorating equipment is.

- Inspect equipment for equipment that may have moved or shifted leading to an opening between 3.5" and 9" that could create a head entrapment.

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- Inspect equipment for protrusions, such as bolts with more than two threads showing

- Inspect equipment for small gaps where slides meet decks where a shoe string, or sweatshirt drawstring could be lodged.

- Look for equipment that is inappropriate for the age group intended to use it, such as tall overhead climbers for ages 2-5 or open railings on decks over 4'.

- Are there any splinters, cracks, or rot in wooden equipment?

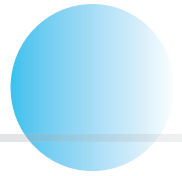
- Is there any rust and deterioration of metal equipment?

- Are there for cracks in plastic equipment?

- Are there any loose hardware that could be tightened?

- Is there a safety sign or safety stickers on the play structure letting parents and guardians know what ages should use the equipment ?

Real World Maintenance and Lifespan



When choosing equipment for your play environment we chose equipment with the expectation that the equipment will not only last for 15 years but that the equipment is meant to function for generations.

General recommendations for maintenance inspections for Berliner Products:

For the documentation of potential damages or for the determination of necessary spare parts it is recommendable to shoot photos and/or to make sketches that help to identify the exact position of the damaged elements in the play structure or that show clearly the dimensions.

1. Visual routine inspection:

According to standard EN 1176-7 the condition of the play structure must be determined through regular inspection. At the same time the soft fall material must be inspected and replenished if necessary. The amount of soft fall material required will depend on the structure. The frequency of the visual inspection will depend on the play activity and the season. We recommend weekly inspections.

2. Operational inspection and maintenance:

2.1. Framework[®] space framework. Check the stability of the framework. Try to vigorously shake the frame. If the framework is unstable or if single pipes are loose, retighten the pipe connections to the nodes (hollow aluminium balls). Furthermore check the paint work for possible corrosion initiation points. If required touch up (remove rust and coat with zinc dust paint). If the correct color is unknown, simply call our technical hot line and provide the identification-number (read off from the identification plate). They should be able to help you immediately.

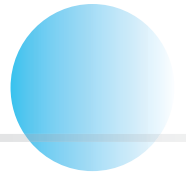
Important note: All steel elements manufactured by us are powder coated with a zinc-epoxy- and a polyester powder in two layers. The high percentage of zinc in the first layer (70%) ensures optimal protection against corrosion as well as improved abrasion resistance. Moreover infiltration of rust through the finish is prevented. Thus corrosion damage is always visible and is usually only an optical impairment.

Nodes (hollow aluminium balls):

Inspect the system nodes for external damage. Check the small hole at the underside of each ball (condensation water run-off) for permeability. Moreover ensure that the rubber cap in the assembly opening of each node is in place and plugged in properly. Check all screws and drill holes for corrosion (if required remove rust and touch up with zinc dust paint; rusted screws should be replaced).



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2.2. Condition of ropes and nets

Inspect all ropes for abrasion of the polyamide coating and for wire fractures. Replace any broken wires. Isolated abrasion of the Polyamide cover does not affect the safety of the part and does not impair the play function.

2.3. Peripherals:

Ensure that a suitable soft fall material is at the correct level and replenish if necessary. The amount of soft fall material required will depend on the structure. Impurities and dangerous sharp-edged objects must be removed from the soft fall area.

2.4. Determining the net tension

First make sure that each cloverleaf ring is in the correct position. The rings must be placed into the visible deflection points of the rope. Moreover it is important to make sure that no rope ends intersect before the balls. Two people are required to determine the tension of the net, irrespective of the type of model. The only tool required is a normal folding ruler.



Real World Maintenance and Lifespan



Playground Inspection/ Maintenance and Repair Guidelines

D70041 Rev. A

The majority of playground injuries are the result of falls from the equipment to the surface below.

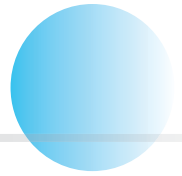
1. Never use concrete, asphalt, grass or compacted earth beneath and/or surrounding playground equipment. Always use a resilient, energy-absorbing material. The more resilient it is, the less likely an injury to the user who falls from the equipment.
2. The minimum dimensions of the use zone around each play apparatus (except swings and slide exits) is six (6) feet in each direction.
3. Swings' use zones must extend at least two (2) times the pivot height to both the front and rear of the top rail. The use zone must extend at least six (6) feet out at each end from the swing frame legs.
4. For the area in front of the slide exit measuring from the point where the slide slope is reduced to five (5) degrees, the use zone must extend a total of four (4) feet plus the height of the platform.

The buyer / owner is responsible for maintenance of the equipment they have purchased.

1. A good preventive maintenance schedule can reduce accidents on playgrounds.
2. Inspect your playgrounds and playground equipment on a regular, scheduled basis.
3. Check your playground(s) for hazardous conditions. Equipment should be inspected for such things as loose or protruding bolts, missing hardware, damaged seats, open "S" hooks or chains, wear of chains, broken parts and splintering of wood surfaces.
4. All debris and litter including broken glass, stones, bottles, cans, etc. should be removed.
5. Loose-fill safety surfacing requires periodic raking to retain resilience in high use areas.
6. Playgrounds should be supervised at all times when children are present.
7. Playground supervisors should not allow children to use equipment incorrectly (i.e. running up slides, climbing on top of horizontal ladders or hand ring bridges, jumping out of swings, etc.)
8. Playground equipment should be installed to allow for safe transition between play apparatus.
9. Playground equipment should always be installed according to the manufacturer's specifications.
10. A regular playground inspection schedule can be established equal to the use and location factors of the park or playground. Certain playgrounds could require daily inspections, others may require only weekly inspections.

Playground Inspection / Maintenance & Repair

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The time interval and choice of maintenance methods depend on the location of the equipment and the amount of usage.

Surfaces with fairly little mechanical damage and a film-coating that is otherwise intact are repaired using method A) a transparent stain. Surfaces with extensive damage to the film coating are repaired using method B) a solid color (pigmented).

A. Transparent wood stain.

Do not work in direct sunlight or at temperatures below +50°F.

1. Clean the old surface or damaged area thoroughly with pre-paint cleaner. Rinse carefully with water. Clean between the boards wherever necessary so that moisture run-off works properly.
2. Let the surface dry until the moisture content is not above 18%.
3. Scrape or sand the damaged (black) areas to remove loose paint and then apply two coats of oil primer. Or treat the entire surface. Let it dry between applications.
4. Leave to dry for at least 4 hours at a temperature of +50°F or above.
5. Apply two coats of wood stain to the damaged areas or until the correct color is achieved. It may be necessary to apply a final coat to the entire surface. Let it dry between applications.
6. Leave to dry for at least 4 hours at a temperature of +50°F or above.

B. Solid color wood stain.

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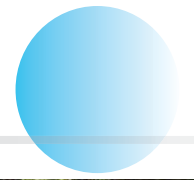
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3. Scrape or sand the damaged (black) areas to remove loose paint and then apply two coats of oil primer. Or treat the entire surface. Let it dry between applications.
4. Leave to dry for at least 4 hours at a temperature of +50°F or above.
5. Apply two coats of solid color wood stain to the damaged areas. It may be necessary to apply a final coat to the entire surface. Let it dry between applications.
6. Leave to dry for at least 4 hours at a temperature of +50°F or above. Although the pigments of our solid color wood stains have been specially developed to match our transparent wood stain shades, slight differences may arise, as it is technically impossible to guarantee a 100% match at all times.

Wood stains for maintenance work.

Maintenance wood stains are available from HAGS – oil primer (colorless) HAGS R353 340 in 5-litre cans and required colors in 0.75 l cans. Touch-up paint can also be ordered. Please contact your HAGS representative for more information!

Improving powder coated steel components.

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UPC: Strength and Maintenance

The solid structure and weight of PFC products ensures they are long lasting and easy to maintain. Maintenance and care are similar to what is needed for concrete picnic tables. Graffiti is simply cleaned with pressure washing and impact vandalism is easily smoothed over and re-stained. The single mold pour production means that very few products have seams. Seams are where most maintenance issues occur and over time, can increase maintenance costs.



What is Polyfibercrete?

Polyfibercrete or PFC is a specially formulated concrete mix that is ideal for creating products like playground boulders, logs or critters. The two types of synthetic fiber used in PFC add structural integrity, and increases shear and tensile strength. When needed, rebar is added to reinforce larger products.

PFC has more portland cement than regular concrete. As it dries, this 'hot' mix concrete produces micro-cracks that enhance the natural look, but do not affect the structural integrity or longevity of the PFC. After the PFC has dried, a light sandblasting gets rid of any sharp or abrasive edges and exposes small air bubbles to offer tiny fingers quality hand holds.



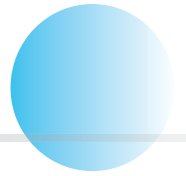
Versatility

Crafting playground products with PFC is easy. PFC is poured directly into a single mold. Color is added to the PFC mix before pouring, so a product has the same shade throughout. A light stain and surface color can be added during the final production stages to match colors of your native rock formations.

The production process also allows us to be creative with our designs – from really big caves to tunnel mountains to easy-to-climb cracks and fissures. Our boulders are not your average square block climbers. This simple manufacturing process means lower production costs, which are passed on to our customers.



Follow Up



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