

When is Certified Surfacing Required?

All playground equipment with a fall height more than 600mm above playing surface level must have a certified impact absorbing surface beneath and around it to help minimise serious head or other injuries. Impact absorbing surfaces must comply with AS 4422. Many impact absorbing materials have been tested for impact attenuation. No one material has proven to be the best solution for all occasions and decisions must be made depending on environmental conditions, cost and preference. All surfaces have advantages and disadvantages that need to be considered. The two main types of surfacing products are loose fill and solid materials.

Loose Fill Materials

Loose fill includes products such as bark mulch, wood chips, wood fibre, rubber mulch, and sand. The cushioning effect of loose fill is achieved by the trapping of air between particles. These products are generally less expensive than solid materials upon installation but require regular maintenance including top ups. However, if the cost of maintenance is measured in economic terms, solid materials may compare favourably over the lifespan of the surfacing. Sand as playground surfacing is a popular alternative, however, must comply with AS 4422. Each sand type varies and may have differing depth requirements. Check with the supplier for documentation on specified depths for sand.



Solid Materials

Solid materials includes products such as synthetic grass, rubber tiles and wet pour rubber. The impact attenuating qualities of solid materials varies according to the thickness of the layer and the composition of the material.

Solid materials can work well in combination with loose fill products providing a fixed surface beneath heavy traffic areas such as under swings and at the base of slides. This assists by reducing the required labour to replenish the loose fill.

Hot Surfaces

If a rubber surface product is desired select a lighter colour at the time of installation as this will absorb less heat. However, be aware that light colours in large expanses can reflect glare and may make the area uncomfortable for users. Heat and glare issues can be minimised with the provision of shade structures or trees. Before children enter the playspace, it is recommended to check the temperature of the playground surface. A thermometer will assist educators or playground providers to determine the temperature. Otherwise holding your hand just above the surface may help you determine if the playground surface is too hot for children to play on. Wetting the area with water may assist in cooling the surface temperature.

Design Tips

Avoid joins in wet pour rubber and synthetic grass in high traffic areas such as beneath swings and exit from slides. Where steps are surfaced with wet pour rubber, bevel back the step edge to allow a thicker wet pour rubber application to deter cracking.

Impact Testing

It is recommended that playground surfacing of solid materials is Impact tested every three years to ensure that the impact attenuating surface is compliant with AS 4422 and to monitor the performance of the playground surfacing.

Surfacing Maintenance

Appropriate maintenance of playground surfacing will extend longevity of the materials and minimise risks to users. Follow manufacturer/supplier instructions for all materials within the playspace in ongoing maintenance inspections.

AS 4685.0:2017 requires loose-fill surfacing to be installed at a minimum depth of 300mm and maintained at not less than 200mm. Installation at a greater depth allows for product loss and dispersion as children use the playspace. Replenish loose fill when necessary.

South Australian Government education sites are to install and maintain loose fill to a depth of 300mm at all times. Please refer to the Department for Education Outdoor Learning Environment Standard for further information.

It is recommended that loose fill be turned with a rotary hoe at least annually. Loose fill products are easily displaced and should be retained by a border or edge that is constructed with an appropriate material and does not present trip hazards or sharp protrusions. Check the border is secure and that timber components have not separated or split.

Regularly check solid surfaces for wear and tear. Use an outdoor blower/vacuum cleaner or stiff broom to remove leaves and unwanted material from the surface. An annual high-pressure wash, will continue to enhance the appearance and reduce any foliage stains. Attention to any surface damage is required immediately. If the surface is shaded and conditions are moist, fungal growth may occur. This can be easily rectified by washing with a mild detergent solution and stiff broom. Synthetic grass may require the topping up of infill sand or rubber. To keep the infill from compacting and to limit the fibres from “matting down”, brush synthetic grass on a regular basis.



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Need more help? Kidsafe SA provides a playground inspection service. Contact us for a quote to organise an inspector to visit your playspace and provide specific advice.