

Information Sheet Number 23

Play Area Surfacing

The legal position

There is no legal requirement for protective surfacing to be provided on children's playgrounds. It is, however, recommended by safety organisations such as RoSPA, BSI, NPFA and CAPT. The Department of the Environment 'strongly recommended' its use in 1978 while the Department of Culture, Media and Sport (currently the Government's lead body on playgrounds) advised its use in their *Playground Safety Guidelines (1993)* as one of the design elements of a safe playground. The Health and Safety Executive has also recommended it.

It is fair to say that recent out-of-court settlements arising from playground accidents have suggested the courts recognise that the provision of suitable surfaces represents good practice, especially under new equipment.

Accident Prevention

There is no doubt that head injuries to children are reduced in severity by the provision of protective surfaces but such falls are a rare occurrence for children over five. It will not reduce accidents but *may* reduce the severity of injury from falls to the playground surface - that is about 50% of injuries resulting in a hospital visit. There is some evidence that it will not reduce long-bone fractures, especially of the upper body. About

30% of fall injuries are related to equipment. Surfacing is only of limited significance to accidents and its provision should be viewed in perspective.

Types of Surfacing

As a general principle there are three main types of protective surfacing for play areas:

Grass

A good, all-purpose surface, but with little wear resistance or impact absorbency in dry conditions.

Loose-fill materials

These include sand, wood products and pea shingle. They have good impact absorbency but disperse and break-down. They are not suitable for moving equipment. Easy to lay.

Synthetic surfaces

There are three main types:

Tiles - generally efficient, long-lasting but can be expensive and difficult to lay.

Wet-pour - generally efficient, long-lasting but expensive and very difficult to lay.

Layered - generally efficient but require some maintenance and can be subject to vandalism and wear problems. Requires expert laying.

Assessing for surfacing

Provision under old equipment

Protective surfaces are expensive so before installing them for existing equipment consider:

- Compliance with Standards,
- Play value,
- Site position, design and use
- Age of equipment
- Foot-print

It is not necessary to provide a protective surfacing immediately for older equipment - have a planned programme of improvement as part of a Play Policy (See **RoSPA** book)

Provision under new equipment

All new equipment should be provided with an appropriate surface. Under 600mm high this need not be a protective surface, but should have some impact attenuation. In some cases (e.g.. Spring items) some ground protection may be required. Grass re-enforcement materials can be used.

Purchasing surfaces

It is recommended that suppliers should give written assurance that their product has been tested in accordance with BS7188 and EN1177. It should be installed to the areas given in EN1176. Copies of appropriate test certificates should be supplied on request. Obtain written assurance that the material will maintain its absorbency levels for the warranty period. **On-site testing is available - ask RoSPA for details.**

Table of Surfacing Comparisons

	Eq. Suit.	Imp. Att.	Acc.	Instl.	Dura.	Maint.	Cost
1	None	None	High	Easy	v.gd	Low	low
2	Vlow items	Vlow	Poor	Easy	Low	Med.	Low
3	Low items	Good if wet	Poor	Easy	Low	Medium	Low
4	Static	High	Poor	Easy	Good	High	Low
5	Static	High	Poor	Easy	Fair	High	Low
6	Static	High	Poor	Easy	High	High	Low
7	All	High	Good	Difficult	Good	Low	High
8	All	High	Good	Mod.	V. good	Low	High
9	Static	Low	Good	Mod.	V. gd	Low	High
10	All	High	High	Difficult	Good	Low	High
11	All	Mod.	Low	Mod.	Fair	Mod.	Mod.

Key:

Eq. Suit. = Equipment suitability

Imp. Att. = Impact attenuation

Acc. = Accessibility for wheeled items/mobility aids

Instl. = Ease of installation

Dura. = Durability

Maint. = Maintenance requirements

Cost = Installation costs

Mod. = Moderate

v. gd = Very good

Vlow = Very low

Med. = Medium

1 = Concrete/tarmac

2 = Earth/hoggin

3 = Grass

4 = Sand

5 = Wood

6 = Shingle

7 = Cast Tiles

8 = Wrap Tiles

9 = Bonded pavers

10 = In-situ lay (wet pour)

11 = Layered (carpet)