

Additional tests

As well as the Critical Fall Height test specified by the European Standard (see Section 1), we have submitted **Playtop**[®] to the four ancillary tests for playground surfaces specified by British Standard BS 7188 : 1998. Other countries have similar Standards. Mechanical performance was also tested. An independent specialist laboratory, The Centre for Sports Technology, carried out the tests. Full reports and formal certificates may be viewed on request.

Resistance to abrasive wear

Resistance to abrasion is crucial to the life expectancy of a playground surface. Some areas - e.g. under swings and round carousels - are abraded in ordinary use. The tests measure the loss of material when a standard abradant wheel abrades four specimens, one freshly produced and three artificially aged by different methods.

	Requirement	Unaged	Air Aged	Water Aged	UV Aged
Wear index	<1	0.76	0.71	0.91	0.99
Wear Ratio	1 to 3	1.15	1.03	1.58	1.33

Slip resistance

Slip resistance is important in preventing ground-level accidents. In the tests, a standard skid-resistance instrument measures the dynamic friction of the surface when dry and when wet. Three samples of each of the seven standard thicknesses of **Playtop**[®] were tested. Figures for dry slip resistance ranged from 80 to 119 and for wet slip resistance from 52 to 79 - all well above the permitted minimum of 40.

Resistance to indentation

Ladders, high heels etc can apply local point loadings to the playground surface. In the tests, a standard load is applied for 15 minutes to a standard cylindrical indenter. Residual indentation is measured at intervals up to 24 hours afterwards.

Three samples of each of the seven standard thicknesses of **Playtop**[®] were tested. Residual indentation after 24 hours ranged from 0.02 mm to 2.32 mm - well below the permitted maximum of 5.0 mm. There was no cracking, splitting or perforation in any case.

Ease of ignition

Playground surfaces must resist ignition if exposed to a local source of fire as a result of accident or vandalism. In the test, a standard stainless-steel nut heated to 900°C is placed on the surface.

Three samples of **Playtop**[®] were tested. The greatest radius of the effects of ignition was 20 mm, against a permitted maximum of 35 mm. This is classified as LOW.

Tensile tests

Tensile strength and elongation at break provide a useful indication of the strength and cohesion of the rubber matrix against competitive products.

Tensile strength (MPa \pm 1%) : 0.68 MPa Elongation at break (% \pm 1.5) : 83%

Technical data sheets are available for:

1. Assessing required thicknesses and areas
2. Substructure specifications
3. Additional tests
4. Maintenance and repair

All can be found under the Downloads section on: www.playtop.com

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