

Playground Park - Surface Temperature Measurement Test

Objective: To measure temperatures of different material surfaces under UV rays in a playground park

Weather: Sunny with some clouds

Max Ambient Temperature: 36.4°C

Max Relative Humidity: 68.60%

Venue: Marine Cove, 1000 East Coast Parkway

Duration: 1200hrs - 1600hrs

S/N	Surfaces	Max Surface Temp (°C)	Remarks
1	EPDM	52.5	
2	Plastic Slide Pt3	51.1	See Slide Temperature Points
3	Polyurea Plastic - Starfish	50.6	
4	Plastic Slide Pt2	48.9	See Slide Temperature Points
5	Plastic Slide Pt1	48.8	See Slide Temperature Points
6	Rubber - lady bugs	47.6	
7	PVC Vinyl	44.0	
8	Painted Concrete	43.1	
9	Ropes	42.7	
10	Imprint Concrete	42.7	
11	Fun Mirror	42.1	
12	Drain Grating	42.1	
13	Artificial Turf	41.0	
14	Pebble Wash	40.5	
15	Plastic Panels	40.0	
16	Play Roller Bed	39.0	
17	Rubber - Unity Slide	39.0	
18	Lamp Post	38.3	
19	Handholds	38.0	
20	Plastic - Stationary Button	36.7	
21	Polysoft	36.4	
22	Stainless Steel Slides Pt3	35.0	See Slide Temperature Points
23	Decks	35.0	
24	Neos Metal	33.3	
25	Timber	32.7	
26	Stainless Steel Slides Pt2	32.6	See Slide Temperature Points
27	Stainless Steel Slides Pt1	32.4	See Slide Temperature Points
28	Neos Plastic	31.5	

Observations:

Findings showed that EPDM registered the highest surface temperature reading of 52.5°C on a relatively warm day of 36.4°C ambient temperature in a playground park in Singapore. This was followed by Polyurea Plastic which registered 50.6°C.

It is noteworthy however, that Polysoft - the alternative to EPDM - registered 36.4°C, a whopping 16.1°C lower than EPDM, making it more viable in terms of thermal comfort.

Playground Park Surface Temperature (°C)



