

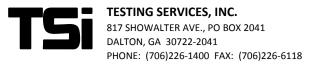
Client: Airfield Systems 8028 North May Avenue Suite 201 Oklahoma City, OK 73120

## Test: ASTM F1292: Impact Attenuation of Surface Systems in and Around Playground Equipment

Turf ID	ATS Turf 6	9sl/st			Тор				
Infill	None				- 1-				
Underlayment:	4 oz Filter	Fabric							
Grid:	AirDrain								
Underlayment:	-	yGreen Foam							
Sub Base:	Concrete	,			Bottom				
				<b>.</b>	20110				
Conditions:	Ambient,	83°F 39% RH		Report #:		62197	Page #	2 of 4	
Date Tested:	9-Sep-14		Fall Height:		9'	Lab #	2650-1155-1		
	•			U					
Drop Area:	Center of Assembly								
	Drop #	Velocity ft/sec	Angle	Drop Ht//	Actual	Drop Ht/Theoretical	Gmax	HIC	
	1	23.9	7	9'		8.88	128	834	
	2	23.9	0	9'		8.88	133	884	
	3	23.9	0	9'		8.88	132	874	
	Average			Drops 2, 3			133	879	
	Quadrant of Assembly								
	Drop #	Velocity ft/sec	Angle	Drop Ht//	Actual	Drop Ht/Theoretical	Gmax	HIC	
	1	23.9	3	9'		8.88	122	767	
	2	23.9	2	9'		8.88	134	895	
	3	23.9	1	9'		8.88	141	964	
	Average			Drops 2, 3			138	930	
	Quadrant of Assembly								
	Drop #	Velocity ft/sec	Angle	Drop Ht/	Actual	Drop Ht/Theoretical	Gmax	HIC	
	1	23.9	0	9'		8.88	128	845	
	2	23.9	4	9'		8.88	132	871	
	3	23.9	3	9'		8.88	137	919	
	Average			Drops 2, 3		135	895		
	Quadrant of Assembly								
	Drop #	Velocity ft/sec	Angle	Drop Ht//	Actual	Drop Ht/Theoretical	Gmax	HIC	
	1	N/A	N/A	N/A	N/A	#VALUE!	N/A	N/A	
	2	N/A	N/A	N/A	N/A	#VALUE!	N/A	N/A	
	3	N/A	N/A	N/A	N/A	#VALUE!	N/A	N/A	
	Average		Drops 2, 3			#VALUE!	#VALUE!		
	Overall gn	t)	135						

Overall gmax (3 Locations, Three Drops Each Location in Same Spot) Overall HIC (3 Locations, Three Drops Each Location in Same Spot) 135 901

OUR LETTERS AND REPORTS APPLY ONLY TO THE SAMPLE TESTED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS. THESE LETTERS AND REPORTS ARE FOR THE USE ONLY OF THE CLIENT TO WHOM THEY ARE ADDRESSED AND THEIR COMMUNICATION TO ANY OTHERS OR THE USE OF THE NAME TESTING SERVICES, INC. MUST RECEIVE OUR PRIOR WRITTEN APPROVAL. THE REPORTS AND LETTERS, AND OUR NAME, OUR SEALS, OR OUR INSIGNIA ARE NOT UNDER ANY CIRCUMSTANCES TO BE USED IN ADVERTISING TO THE GENERAL PUBLIC.



Client: Airfield Systems 8028 North May Avenue Suite 201 Oklahoma City, OK 73120

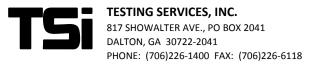
## Test: ASTM F1292: Impact Attenuation of Surface Systems in and Around Playground Equipment

Turf ID	ATS Turf 69	Əsl/st		Тор					
Infill	None								
Underlayment:	4 oz Filter l	Fahric							
Grid:	AirDrain	abrie							
Underlayment:	-	Green Foam							
Sub Base:	Concrete	Green Fuan		Botto	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~				
Sub Base.	Concrete								
Conditions:	Cold	Min 8hrs @	20°F	Report #:	62296	Page #	3 of 4		
Date Tested:	10-Sep-14	-		Fall Height:	9'	Lab #	2650-1155-1		
Drop Area:	Center of Assembly								
	Drop #	Velocity ft/sec	Angle	Drop Ht/Actual	Drop Ht/Theoretical	Gmax	HIC		
	1	24.0	6	9'	8.95	123	799		
	2	24.0	7	9'	8.95	131	858		
	3	24.0	5	9'	8.95	136	885		
	Average			Drops 2, 3		134	872		
	Quadrant of Assembly								
	Drop #	Velocity ft/sec	Angle	Drop Ht/Actual	Drop Ht/Theoretical	Gmax	HIC		
	1	24.0	0	9'	8.95	133	908		
	2	24.0	3	9'	8.95	140	972		
	3	24.0	5	9'	8.95	147	1020		
	Average			Drops 2, 3		144	996		
	Quadrant of Assembly								
	Drop #	Velocity ft/sec	Angle	Drop Ht/Actual	Drop Ht/Theoretical	Gmax	HIC		
	1	24.0	7	9'	8.95	129	859		
	2	24.0	3	9'	8.95	144	990		
	3	24.0	2	9'	8.95	150	1027		
	Average			Drops 2, 3		147	1009		
	Quadrant of Assembly								
	Drop #	Velocity ft/sec	Angle	Drop Ht/Actual	Drop Ht/Theoretical	Gmax	HIC		
	1	23.9	7	9'	8.88	117	726		
	2	24.0	3	9'	8.95	124	786		
	3	24.0	2	9'	8.95	132	848		
	Average			Drops 2, 3		128	817		
	Overall gmax (4 Locations, Three Drops Each Location in Same Spot)								

Overall HIC (4 Locations, Three Drops Each Location in Same Spot)

923

OUR LETTERS AND REPORTS APPLY ONLY TO THE SAMPLE TESTED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS. THESE LETTERS AND REPORTS ARE FOR THE USE ONLY OF THE CLIENT TO WHOM THEY ARE ADDRESSED AND THEIR COMMUNICATION TO ANY OTHERS OR THE USE OF THE NAME TESTING SERVICES, INC. MUST RECEIVE OUR PRIOR WRITTEN APPROVAL. THE REPORTS AND LETTERS, AND OUR NAME, OUR SEALS, OR OUR INSIGNIA ARE NOT UNDER ANY CIRCUMSTANCES TO BE USED IN ADVERTISING TO THE GENERAL PUBLIC.



Client: Airfield Systems 8028 North May Avenue Suite 201 Oklahoma City, OK 73120

## Test: ASTM F1292: Impact Attenuation of Surface Systems in and Around Playground Equipment

Turf ID	ATS Turf 6	9sl/st		Тор					
Infill	None								
Underlayment:	4 oz Filter	Fabric							
Grid:	AirDrain								
Underlayment:	2 1/8" Pol	yGreen Foam							
Sub Base:	Concrete Bottom								
				<b>.</b>					
Conditions:	Hot	Min 8 hrs @	9 120°F	Report #:	62197	Page #	4 of 4		
Date Tested:	11-Sep-14			Fall Height:	9'	Lab #	2650-1155-1		
Drop Area:	Center of Assembly								
	Drop #	Velocity ft/sec	Angle	Drop Ht/Actual	Drop Ht/Theoretical	Gmax	HIC		
	1	24.0	7	9'	8.95	126	815		
	2	24.0	6	9'	8.95	133	868		
	3	24.1	3	9'	9.03	129	833		
	Average			Drops 2, 3		131	851		
	Quadrant of Assembly								
	Drop #	Velocity ft/sec	Angle	Drop Ht/Actual	Drop Ht/Theoretical	Gmax	HIC		
	1	24.0	5	9'	8.95	130	859		
	2	24.0	3	9'	8.95	134	882		
	3	24.0	0	9'	8.95	135	895		
	Average			Drops 2, 3		135	889		
	Quadrant of Assembly								
	Drop #	Velocity ft/sec	Angle	Drop Ht/Actual	Drop Ht/Theoretical	Gmax	HIC		
	1	23.9	8	9'	8.88	120	766		
	2	24.0	8	9'	8.95	131	862		
	3	23.9	1	9'	8.88	129	851		
	Average			Drops 2, 3		130	857		
	Quadrant of Assembly								
	Drop #	Velocity ft/sec	Angle	Drop Ht/Actual	Drop Ht/Theoretical	Gmax	HIC		
	1	N/A	N/A	N/A	#VALUE!	N/A	N/A		
	2	N/A	N/A	N/A	#VALUE!	N/A	N/A		
	3	N/A	N/A	N/A	#VALUE!	N/A	N/A		
	Average			Drops 2, 3		<b>#VALUE!</b>	<b>#VALUE!</b>		

Overall gmax (4 Locations, Three Drops Each Location in Same Spot) Overall HIC (4 Locations, Three Drops Each Location in Same Spot) 132 866

OUR LETTERS AND REPORTS APPLY ONLY TO THE SAMPLE TESTED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS. THESE LETTERS AND REPORTS ARE FOR THE USE ONLY OF THE CLIENT TO WHOM THEY ARE ADDRESSED AND THEIR COMMUNICATION TO ANY OTHERS OR THE USE OF THE NAME TESTING SERVICES, INC. MUST RECEIVE OUR PRIOR WRITTEN APPROVAL. THE REPORTS AND LETTERS, AND OUR NAME, OUR SEALS, OR OUR INSIGNIA ARE NOT UNDER ANY CIRCUMSTANCES TO BE USED IN ADVERTISING TO THE GENERAL PUBLIC.