



LABORATORY TESTING LA ABRASION



Project Information

Project Name	Medium Density and High Density LA Abrasion Infill Durability Comparison	
Client Information	Greenplay Sports 6 Hawthorne Avenue Merrick, NY 11566	
Date	March 17, 2017	
Report Status	Final	
Job No.	91949/2039	
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Checked By	<i>Jeffrey Gentile</i> Laboratory Director	

Notes:

1. This report has been prepared by Sports Labs USA with all reasonable skill, care and diligence within the terms of the contract with the Client and within the limitations of the resources devoted to it.
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Summary

Sports Labs USA was commissioned to perform a modified LA Abrasion test to show the different amount of breakdown when a medium and high density cork are compared. A medium and high density sample where both subject to 1000 revolutions within the LA Abrasion machine. Eight charges where used to fulfill the intended abrasion of material.

Gradations were performed to the EN 933-1 Standard.

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Infill Description

	Characteristic	Results		Characteristic	Results
Medium Density Pre-Abrasion	Particle Size (mm)	1 - 2.5	Medium Density Post Abrasion	Particle Size (mm)	.8 - 2.5
	Particle Shape	Irregular		Particle Shape	Irregular
	Bulk Density (kg/m ³)	129		Bulk Density (kg/m ³)	134



MD pre-abrasion close



MD pre-abrasion med



MD pre-abrasion far



MD post abrasion close



MD post abrasion med



MD post abrasion far

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	Characteristic	Results		Characteristic	Results
High Density Pre-Abrasion	Particle Size (mm)	.8-2.5	High Density Post Abrasion	Particle Size (mm)	.8-2.0
	Particle Shape	Irregular		Particle Shape	Irregular
	Bulk Density (kg/m3)	200		Bulk Density (kg/m3)	265



HD pre-abrasion close



HD pre-abrasion med



HD pre-abrasion far



HD post abrasion close



HD post abrasion med



HD post abrasion far

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Infill Comparison

Particle Size Distribution for Medium Density						
Particle Size Distribution Pre-Abrasion		Allowable Variation			Particle Size Distribution Post Abrasion	
Sieve Size (mm)	Passing (%)	Variation	Allowable	Pass / Fail	Sieve Size (mm)	Passing (%)
4.000	100.000	0.0	< ± 10%	Pass	4.000	100.0
3.350	100.000	0.0	< ± 10%	Pass	3.350	100.0
2.50	99.800	0.0	< ± 10%	Pass	2.50	99.5
2.00	81.300	8.1	< ± 10%	Pass	2.00	87.2
1.60	40.600	9.5	< ± 10%	Pass	1.60	45.9
1.25	5.600	6.6	< ± 10%	Pass	1.25	15.1
1.00	0.500	2.3	< ± 10%	Pass	1.00	4.6
0.80	0.000	1.2	< ± 10%	Pass	0.80	2.5
0.63	0.000	0.9	< ± 10%	Pass	0.63	1.9
0.50	0.000	0.8	< ± 10%	Pass	0.50	1.4
0.315	0.000	0.3	< ± 10%	Pass	0.315	0.8
0.200	0.000	0.3	< ± 10%	Pass	0.200	0.0



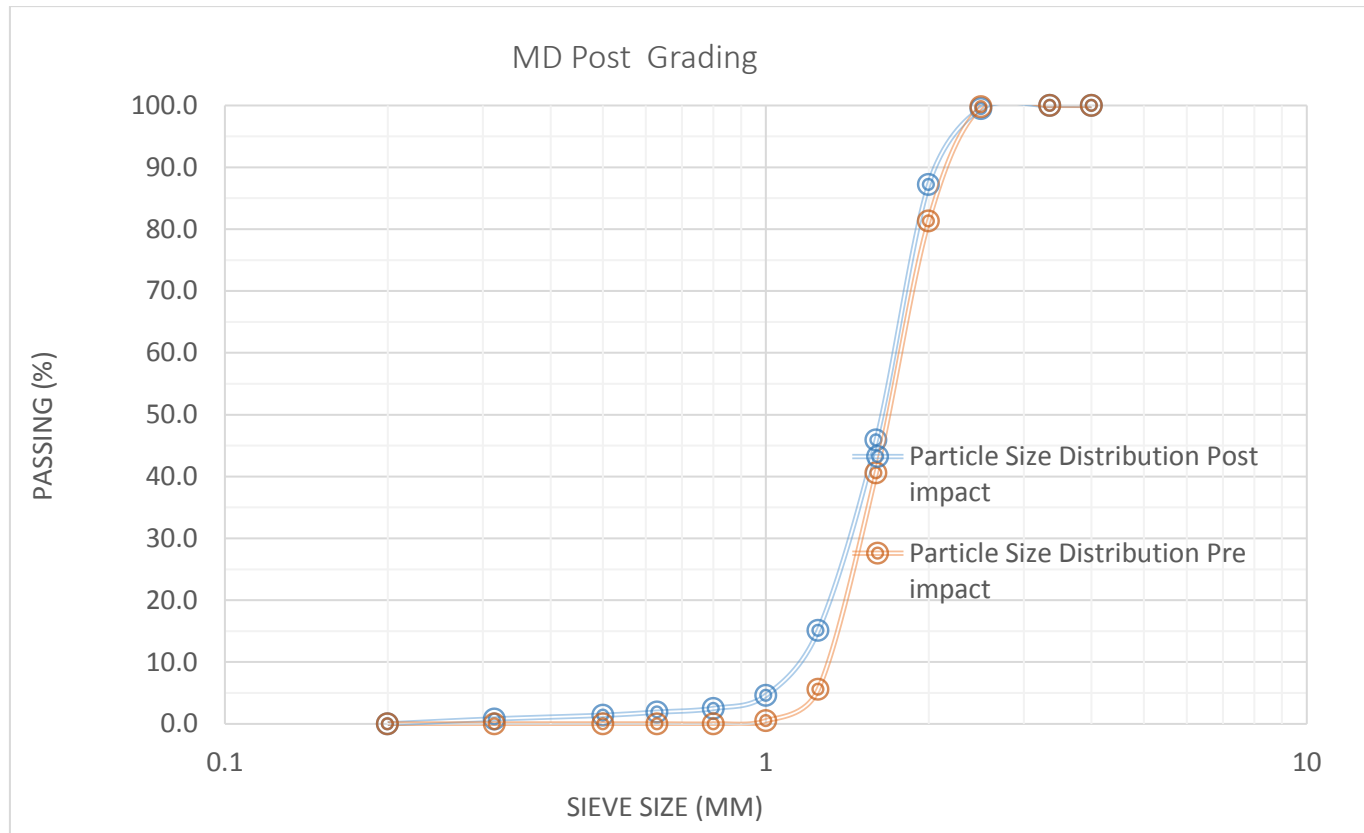
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Particle Size Distribution for High Density						
Particle Size Distribution Pre-Abrasion		Allowable Variation			Particle Size Distribution Post Abrasion	
Sieve Size (mm)	Passing (%)	Variation	Allowable	Pass / Fail	Sieve Size (mm)	Passing (%)
4.000	100.000	0.0	< ± 10%	Pass	4.000	100.0
3.350	100.000	0.0	< ± 10%	Pass	3.350	100.0
2.50	99.200	0.5	< ± 10%	Pass	2.50	99.9
2.00	83.300	10.5	< ± 10%	Fail	2.00	95.0
1.60	52.700	18.7	< ± 10%	Fail	1.60	71.1
1.25	21.400	15.1	< ± 10%	Fail	1.25	40.2
1.00	3.700	4.0	< ± 10%	Fail	1.00	17.0
0.80	0.400	1.1	< ± 10%	Fail	0.80	11.2
0.63	0.100	1.0	< ± 10%	Pass	0.63	9.6
0.50	0.100	0.8	< ± 10%	Pass	0.50	7.9
0.315	0.100	0.7	< ± 10%	Pass	0.315	4.6
0.200	0.100	0.6	< ± 10%	Pass	0.200	1.8

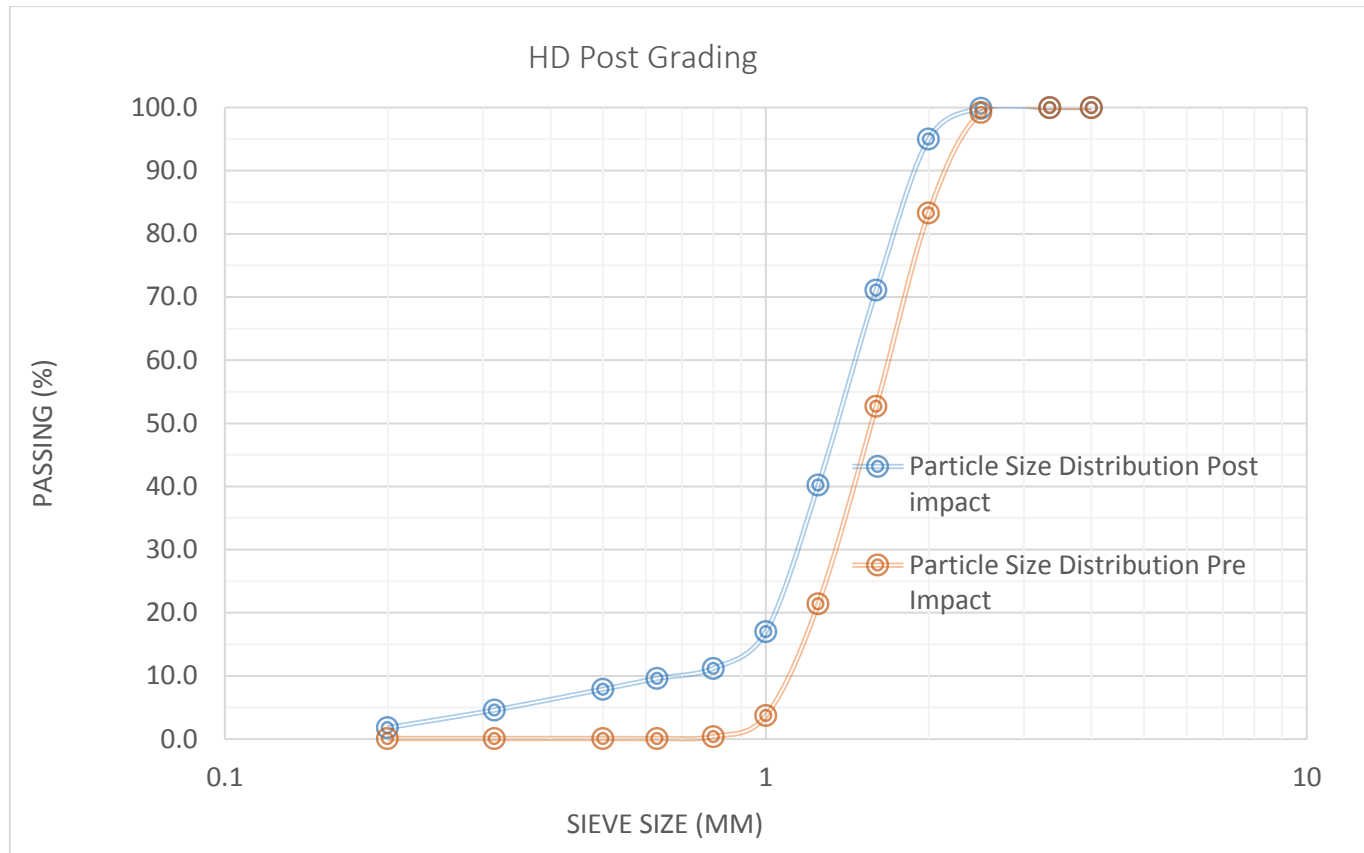


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End of Report



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