

LABORATORY TESTING INFILL EVALUATION



Project Information

Project Name	Guardian Air Blown TPE Infill Infill Evaluation	Sample Received	11/21/2018
Client Information	Axial, A Westlake Company 210 Industrial Drive N Madison, MS 39110		
Date	August 20, 2019		
Report Status	Final		
Job No.	94551/4933		
Prepared by	Megan Illsley Laboratory Director		
Checked By	Jeffrey Gentile Operations 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.
2. This report is confidential to the Client and Sports Labs USA accepts no responsibility whatsoever to third parties to whom this report, or any part thereof, is made known. Any such party relies upon the report at their own risk.
3. This report shall not be used for engineering or contractual purposes unless signed by the Author and the Checker and unless the report status is "Final."
4. * Not all tests carried out are within out scope of ISO 17025 Accreditation.

Summary

Sports Labs USA was commissioned to perform infill evaluation testing. Infill samples were sent to our laboratory. The tests performed were per the standards listed below.

- BS EN 933-1:2012 - Determination of Particle Size Distribution
- BS EN 14955:2005 Determination of Particle Shape
- BS EN 1097-3:1998 - Determination of Loose Bulk Density
- FIFA Test Method 11 - Thermogravimetric Analysis
- *BS EN 14836:2018 Method 2 - Exposure to Artificial Weathering
- BS EN 20105-A02:1995 - Grey Scale for Assessing Change in Colour

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Page 1 of 5



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Table Contents

Project Information	1
Summary	1
General Information	2
Product Identification.....	2
Thermogravimetric Analysis	3
Infill Particle Size Distribution.....	4
UVA (340 nm) Aging (9600 kJ)	5
Infill Photos.....	5
End of Report.....	5

General Information

Testing Date	11/21/2018 - 8/20/2019	Material	Guardian Air Blown TPE
Temperature	72°C	Humidity	45%

Product Identification

	Property	Result
Guardian Air Blown TPE Infill	Particle Size Range	2.0-3.35 mm
	Particle Shape	C2
	Bulk Density	0.650 g/cm ³
	TGA % Organic	55.83
	TGA % Inorganic	44.17
	Color	Green

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Page 2 of 5

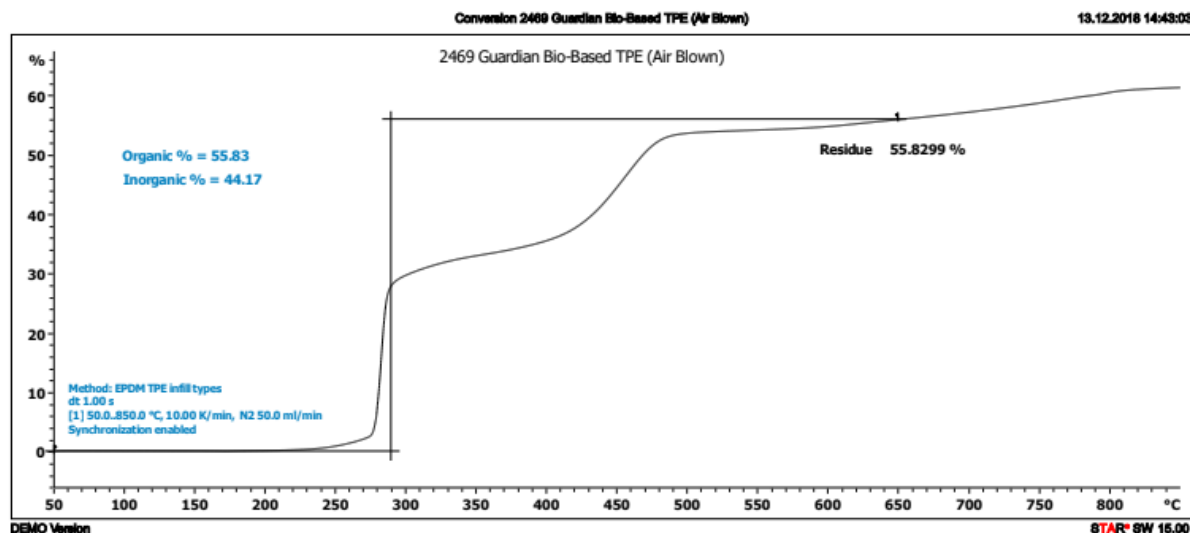


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Thermogravimetric Analysis



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Page 3 of 5



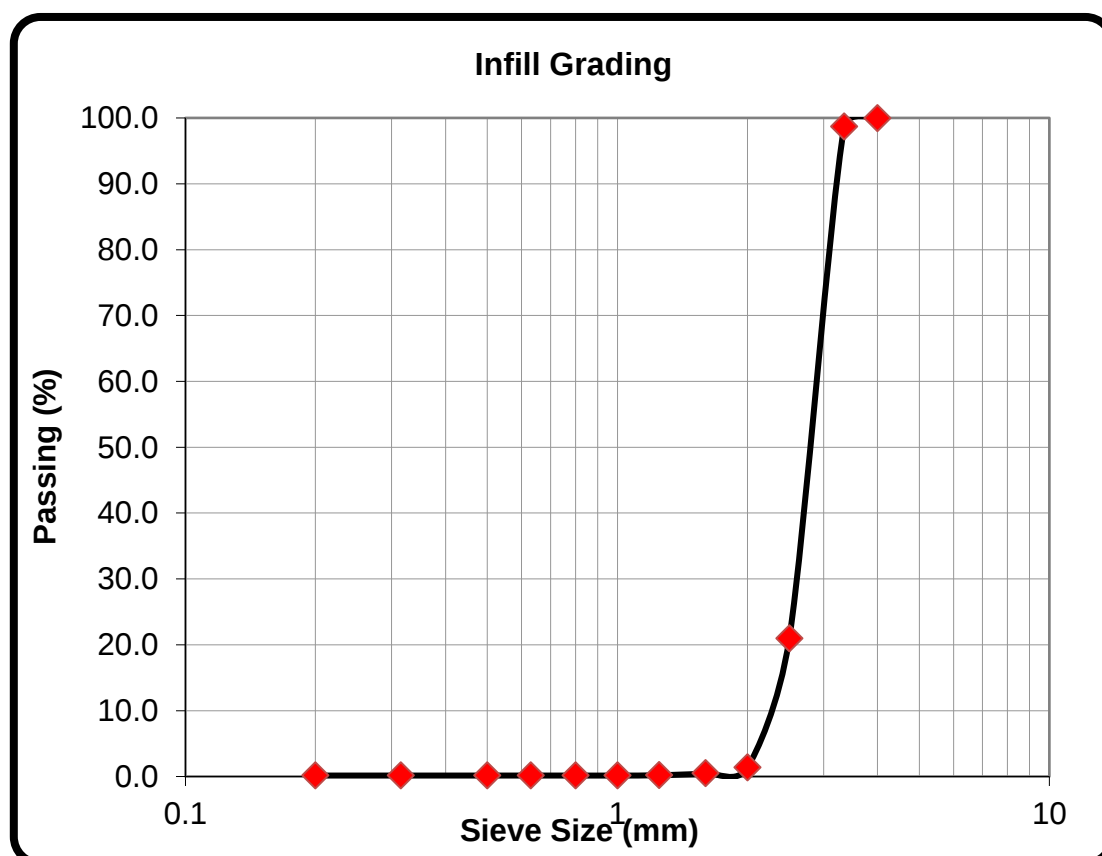
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Infill Particle Size Distribution

Sieve Size (mm)	Passing (%)	Sample Photo
4.000	100.0	
3.350	98.7	
2.500	21.0	
2.000	1.4	
1.600	0.5	
1.250	0.2	
1.000	0.1	
0.800	0.1	
0.630	0.1	
0.500	0.1	
0.315	0.1	
0.200	0.1	
Passing to base tray	0.1	



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Page 4 of 5



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UVA (340 nm) Aging (9600kJ)

Parameter	Result	
	Un-aged	UVA Aged
Color Change (Grey Scale)	-----	4

Infill Photos



End of Report

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Page 5 of 5

