

GLASS BEADS TEST REPORT

Project No.: 2240



To: Alberta Transportation
 Technical Standards Branch
 2nd Floor, Twin Atria Building
 4999 - 98 Ave
 Edmonton, AB T6B 2X3

Distribution Addressee: Wood Environment & Infrastructure Solutions
 5671 - 70 Street
 Edmonton, AB
 Canada T6B 3P6
 Tel +1 (780) 436-2152
 Fax +1 (780) 377-3599

Attn:Rishi Adhikari, P.Eng.

Lab Number 2019	Date Received 2019	Date Reported 2019	Lot Number	Roundness (%)	Reflective (%)	Moisture Resistance	Sieve Analysis % Passing					Supplier	With Paint Batch Number 2019
							800	630	315	160	80		
GB1	May-17	Jun-7	111618-G	69.9*	67.6*	Pass	99.6*	93.4	31.7	0.2	0.0	Swarco	B1&B2
GB2	May-23	Jun-7	MJ-H-101317			Pass	98.6*	87.7	25.4	2.1	0.0	POTTERS	B3 & B4
GB3	May-24	Jun-7	MJ-H-103017	81.0	79.0	Pass	99.9*	93.9	30.2	2.5	0.19*	POTTERS	B5 & B6
GB4	May-24	Jun-7	M-H-J-20818			Pass	99.6*	92.2	28.4	0.1	0.0	POTTERS	B9 & B10
Specification				Min. 75	Min. 70	Pass	100	75-95	15-35	0-5	0		

* Indicates result outside tolerance limits.

Test not required by Alberta Transportation

PER: _____ 7-Jun-19

Reviewed By: _____ DATE

Reporting of these results constitutes a testing service only. Engineering Interpretation or evaluation of the test results is provided only on written request.

GLASS BEADS TEST REPORT

Project No.: EA16335



To: Alberta Transportation
 Technical Standards Branch
 2nd Floor, Twin Atria Building
 4999 - 98 Ave
 Edmonton, AB T6B 2X3

Distribution Addressee: Wood Environment & Infrastructure Solutions
 5671 - 70 Street
 Edmonton, AB
 Canada T6B 3P6
 Tel +1 (780) 436-2152
 Fax +1 (780) 377-3599

Attn: Rishi Adhikari, P.Eng.

Lab Number 2019	Date Received 2019	Date Reported 2019	Lot Number	Roundness (%)	Reflective (%)	Moisture Resistance	Sieve Analysis % Passing					Supplier	With Paint Batch Number 2019
							800	630	315	160	80		
GB5	May-30	Jun-25	MJ-H-51719	81.9	79.5	Pass	100.0	93.6	31.0	1.1	0.1*	POTTERS	B13 & B14
GB6	May-31	Jun-25	MJ-H-41319			Pass	99.6*	94.5	17.5	2.9	0.0	POTTERS	B17 & B 18
GB7	Jun-5	Jun-25	MJ-H-1114172	78.6	76.3	Pass	100.0	97.1*	34.9	3.5	0.0	POTTERS	B25 & B 26
GB8	Jun-10	Jun-25	MJ-H-103017			Pass	99.6*	95.0	33.3	2.7	0.19*	POTTERS	B31 & B32
Specification				Min. 75	Min. 70	Pass	100	75-95	15-35	0-5	0		

* Indicates result outside tolerance limits.

Test not required by Alberta Transportation

PER:  25-Jun-19
 DATE
 Reviewed By: 

Reporting of these results constitutes a testing service only. Engineering Interpretation or evaluation of the test results is provided only on written request.

GLASS BEADS TEST REPORT

Project No.: EA16335



To: Alberta Transportation
 Technical Standards Branch
 2nd Floor, Twin Atria Building
 4999 - 98 Ave
 Edmonton, AB T6B 2X3

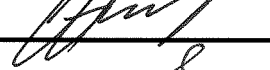
Distribution Addressee: Wood Environment & Infrastructure Solutions
 5671 - 70 Street
 Edmonton, AB
 Canada T6B 3P6
 Tel +1 (780) 436-2152
 Fax +1 (780) 377-3599

Attn:Rishi Adhikari, P.Eng.

Lab Number	Date Received	Date Reported	Lot Number	Roundness (%)	Reflective (%)	Moisture Resistance	Sieve Analysis % Passing					Supplier	With Paint Batch Number 2019
							800	630	315	160	80		
GB9	Jun-11	Jul-15	MJ-H-42419	83.3	80.3	Pass	100.0	90.5	23.0	0.8	0.00	POTTERS	B35 & B36
GB10	Jun-14	Jul-15	MJ-H-92418			Pass	99.7*	89.9	29.7	3.4	0.00	POTTERS	B41 & B42
GB11	Jun-18	Jul-15	MJ-H-110318	82.7	79.9	Pass	99.5*	89.9	30.1	2.3	0.18*	POTTERS	B44 & B45
GB12	Jun-19	Jul-15	MJ-H-110318			Pass	99.6	85.0	25.0	2.6	0.00	POTTERS	B49 & B50
Specification				Min. 75	Min. 70	Pass	100	75-95	15-35	0-5	0		

* Indicates result outside tolerance limits.

Test not required by Alberta Transportation

PER:  15-Jul-19
 DATE

Reviewed By: 

Reporting of these results constitutes a testing service only. Engineering Interpretation or evaluation of the test results is provided only on written request.

GLASS BEADS TEST REPORT

Project No.: EA16335



To: Alberta Transportation
 Technical Standards Branch
 2nd Floor, Twin Atria Building
 4999 - 98 Ave
 Edmonton, AB T6B 2X3

Distribution Addressee: Wood Environment & Infrastructure Solutions
 5671 - 70 Street
 Edmonton, AB
 Canada T6B 3P6
 Tel +1 (780) 436-2152
 Fax +1 (780) 377-3599

Attn: Rishi Adhikari, P.Eng.

Lab Number 2019	Date Received 2019	Date Reported 2019	Lot Number	Roundness (%)	Reflective (%)	Moisture Resistance	Sieve Analysis % Passing					Supplier	With Paint Batch Number 2019
							800	630	315	160	80		
GB13	Jun-21	Aug-6	MJ-H-103018	87.2	84.4	Pass	99.8*	90.5	25.3	2.4	0.00	POTTERS	B55 & B56
GB14	Jun-26	Aug-6	MJ-H-92718			Pass	99.8*	88.1	24.6	1.2	0.00	POTTERS	B59 & B60
GB15	Jul-2	Aug-6	MJ-H-92718	83.4	80.2	Pass	99.6*	89.2	32.8	5.0	0.08*	POTTERS	B63 & B64
GB16	Jul-10	Aug-6	MJ-H-102318			Pass	99.4	86.5	22.0	3.7	0.04*	POTTERS	B69 & B70
Specification				Min. 75	Min. 70	Pass	100	75-95	15-35	0-5	0		

* Indicates result outside tolerance limits.

Test not required by Alberta Transportation

PER: _____ 6-Aug-19

Reviewed By: _____ DATE

Reporting of these results constitutes a testing service only. Engineering Interpretation or evaluation of the test results is provided only on written request.

GLASS BEADS TEST REPORT

Project No.: EA16335



To: Alberta Transportation
 Technical Standards Branch
 2nd Floor, Twin Atria Building
 4999 - 98 Ave
 Edmonton, AB T6B 2X3

Distribution Addressee: Wood Environment & Infrastructure Solutions
 5671 - 70 Street
 Edmonton, AB
 Canada T6B 3P6
 Tel +1 (780) 436-2152
 Fax +1 (780) 377-3599

Attn:Rishi Adhikari, P.Eng.

Lab Number	Date Received	Date Reported	Lot Number	Roundness (%)	Reflective (%)	Moisture Resistance	Sieve Analysis % Passing					Supplier	With Paint Batch Number 2019
							800	630	315	160	80		
GB17	Jul-15	Aug-16	MJ-H-11417-2	82.9	79.8	Pass	99.7*	95.0	29.2	2.7	0.00	POTTERS	B75 & B76
GB18	Jul-16	Aug-16	MJ-H-51719			Pass	99.8*	91.8	35.0	4.4	0.20*	POTTERS	B79 & B80
GB19	Jul-19	Aug-16	MJ-H-20619-1	83.5	80.8	Pass	99.8*	89.3	26.0	1.8	0.22*	POTTERS	B83 & B84
GB20	Jul-23	Aug-16	MJ-H-92918-1			Pass	99.8*	90.6	32.0	6.5*	0.04*	POTTERS	B87 & B88
Specification				Min. 75	Min. 70	Pass	100	75-95	15-35	0-5	0		

* Indicates result outside tolerance limits.

Test not required by Alberta Transportation

PER: _____ 16-Aug-19
 DATE

Reviewed By: _____

Reporting of these results constitutes a testing service only. Engineering Interpretation or evaluation of the test results is provided only on written request.

GLASS BEADS TEST REPORT
 Project No.: EA16335



To: Alberta Transportation
 Technical Standards Branch
 2nd Floor, Twin Atria Building
 4999 - 98 Ave
 Edmonton, AB T6B 2X3

Distribution Addressee: Wood Environment & Infrastructure Solutions
 5671 - 70 Street
 Edmonton, AB
 Canada T6B 3P6
 Tel +1 (780) 436-2152
 Fax +1 (780) 377-3599

Attn: Rishi Adhikari, P.Eng.

Lab Number	Date Received	Date Reported	Lot Number	Roundness (%)	Reflective (%)	Moisture Resistance	Sieve Analysis % Passing					Supplier	With Paint Batch Number
							800	630	315	160	80		
GB25	Jul-29	Oct-15	MJ-H-10918	79.1	76.5	Pass	99.2*	91.1	30.3	3.8	0.07*	POTTERS	B98
GB26	Aug-7	Oct-15	MJ-H-12617	81.4	78.6	Pass	99.8*	87.5	27.5	1.4	0.0	POTTERS	B99&B100
GB27	Aug-8	Oct-15	MJ-H-72419	79.3	76.7	Pass	99.9*	95.6	23.6	2.2	0.11*	POTTERS	B101&B102
GB28	Aug-8	Oct-15	MJ-H-12119	83.3	75.4	Pass	99.9*	93.8	28.3	1.3	0.0	POTTERS	B103&B104
Specification				Min. 75	Min. 70	Pass	100	75-95	15-35	0-5	0		

* Indicates result outside tolerance limits.

Test not required by Alberta Transportation

PER: _____ 15-Oct-19

DATE

Reviewed By: _____

Reporting of these results constitutes a testing service only. Engineering Interpretation or evaluation of the test results is provided only on written request.

GLASS BEADS TEST REPORT

Project No.: EA16335



To: Alberta Transportation
 Technical Standards Branch
 2nd Floor, Twin Atria Building
 4999 - 98 Ave
 Edmonton, AB T6B 2X3

Distribution Addressee: Wood Environment & Infrastructure Solutions
 5671 - 70 Street
 Edmonton, AB
 Canada T6B 3P6
 Tel +1 (780) 436-2152
 Fax +1 (780) 377-3599

Attn: Rishi Adhikari, P.Eng.

Lab Number 2019	Date Received 2019	Date Reported 2019	Lot Number	Roundness (%)	Reflective (%)	Moisture Resistance	Sieve Analysis % Passing					Supplier	With Paint Batch Number 2019
							800	630	315	160	80		
GB29	Aug-11	Oct-21	MJ-H-12418	77.3	74.2	Pass	99.6*	93.8	18.7	1.5	0.0	POTTERS	B105&B106
GB30	Aug-16	Oct-21	MJ-H-72414	78.7	75.8	Pass	99.4*	87.0	26.4	4.0	0.0	POTTERS	B107&B108
GB31	Aug-19	Oct-21	MJ-H-103018	82.8	79.6	Pass	99.7*	88.1	27.3	3.2	0.0	POTTERS	B109&B110
GB32	Aug-19	Oct-21	MJ-H-120718	81.8	78.3	Pass	99.5*	88.3	26.0	2.5	0.0	POTTERS	B111&B112
Specification				Min. 75	Min. 70	Pass	100	75-95	15-35	0-5	0		

* Indicates result outside tolerance limits.

Test not required by Alberta Transportation

PER: _____ 21-Oct-19

Reviewed By: _____ DATE

Reporting of these results constitutes a testing service only. Engineering Interpretation or evaluation of the test results is provided only on written request.

GLASS BEADS TEST REPORT

Project No.: EA16335



To: Alberta Transportation
 Technical Standards Branch
 2nd Floor, Twin Atria Building
 4999 - 98 Ave
 Edmonton, AB T6B 2X3

Distribution Addressee: Wood Environment & Infrastructure Solutions
 5671 - 70 Street
 Edmonton, AB
 Canada T6B 3P6
 Tel +1 (780) 436-2152
 Fax +1 (780) 377-3599

Attn: Rishi Adhikari, P.Eng.

Lab Number	Date Received	Date Reported	Lot Number	Roundness (%)	Reflective (%)	Moisture Resistance	Sieve Analysis % Passing					Supplier	With Paint Batch Number
							2019	2019	2019	800	630		
GB33	Aug-19	Oct-28	MJ-H-122718-1	82.1	78.6	Pass	99.8*	85.9	27.3	2.4	0.0	POTTERS	B113&B114
GB34	Aug-20	Oct-28	MJ-H-124912-1	82.0	78.1	Pass	99.7*	89.3	24.3	2.9	0.0	POTTERS	B115&B116
GB35	Aug-21	Oct-28	MJ-H-N/A	77.0	74.0	Pass	99.1*	90.3	32.6	6.4*	0.19*	POTTERS	B117&B118
GB36	Aug-22	Oct-28	MJ-H-72419	80.4	77.0	Pass	99.7*	88.7	28.6	3.4	0.36*	POTTERS	B119&B120
Specification				Min. 75	Min. 70	Pass	100	75-95	15-35	0-5	0		

* Indicates result outside tolerance limits.

Test not required by Alberta Transportation

PER: _____ 28-Oct-19
 DATE

Reviewed By: _____

Reporting of these results constitutes a testing service only. Engineering interpretation or evaluation of the test results is provided only on written request.

GLASS BEADS TEST REPORT

Project No.: EA16335



To: Alberta Transportation
 Technical Standards Branch
 2nd Floor, Twin Atria Building
 4999 - 98 Ave
 Edmonton, AB T6B 2X3

Distribution Addressee: Wood Environment & Infrastructure Solutions
 5671 - 70 Street
 Edmonton, AB
 Canada T6B 3P6
 Tel +1 (780) 436-2152
 Fax +1 (780) 377-3599

Attn: Rishi Adhikari, P.Eng.

Lab Number 2019	Date Received 2019	Date Reported 2019	Lot Number	Roundness (%)	Reflective (%)	Moisture Resistance	Sieve Analysis % Passing					Supplier	With Paint Batch Number 2019
							800	630	315	160	80		
GB37	Aug-24	Nov-8	MJ-H-80119	79.9	76.6	Pass	99.5*	87.9	29.5	3.0	0.0	POTTERS	B123 & B124
GB38	Aug-27	Nov-8	MJ-H-71219	81.8	78.6	Pass	98.3*	86.1	21.4	0.2	0.0	POTTERS	B125 & B126
GB39	Aug-27	Nov-8	MJ-H-71219	78.4	75.4	Pass	96.7*	76.7*	20.2	1.7	0.0	POTTERS	B127 & B 128
GB40	Aug-30	Nov-8	MJ-H-71219	81.0	76.5	Pass	96.7	75.6*	18.5	1.3	0.0	POTTERS	B129 & B130
Specification				Min. 75	Min. 70	Pass	100	75-95	15-35	0-5	0		

* Indicates result outside tolerance limits.

Test not required by Alberta Transportation

PER:  8-Nov-19

DATE

Reviewed By: 

Reporting of these results constitutes a testing service only. Engineering Interpretation or evaluation of the test results is provided only on written request.

GLASS BEADS TEST REPORT
Project No.: EA16335



To: Alberta Transportation
Technical Standards Branch
2nd Floor, Twin Atria Building
4999 - 98 Ave
Edmonton, AB T6B 2X3

Distribution Addressee: Wood Environment & Infrastructure Solutions
5671 - 70 Street
Edmonton, AB
Canada T6B 3P6
Tel +1 (780) 436-2152
Fax +1 (780) 377-3599

Attn: Rishi Adhikari, P.Eng.

Lab Number 2019	Date Received 2019	Date Reported 2019	Lot Number	Roundness (%)	Reflective (%)	Moisture Resistance	Sieve Analysis % Passing					Supplier	With Paint Batch Number 2019
							800	630	315	160	80		
GB41	Sep-3	Nov-15	MJ-H-12117	78.4	75.3	Pass	99.8*	88.7	24.5	2.3	0.0	POTTERS	B131&7B134
GB42	Sep-3	Nov-15	MJ-H-90518	82.6	78.2	Pass	99.7*	91.4	31.0	3.4	0.0	POTTERS	B132 & B133
GB43	Sep-3	Nov-15	MJ-H-81219	76.0	71.6	Pass	98.3*	86.3	24.8	2.5	0.0	POTTERS	B135 & B136
GB44	Sep-3	Nov-15	MJ-H-81419	77.7	73.5	Pass	98.6*	88.7	33.1	2.8	0.0	POTTERS	B137 & B138
GB45	Sep-5	Nov-15	MJ-H-81219-3	77.2	74.8	Pass	95.6*	91.5	28.7	0.9	0.0	POTTERS	B139 & B140
GB46	Sep-5	Nov-15	MJ-H-80719-4	86.3	82.5	Pass	98.8*	90.8	27.9	2.8	0.0	POTTERS	B143 & B144
GB47	Sep-5	Nov-15	MJ-H-122718	81.7	78.5	Pass	99.6*	87.1	21.7	1.0	0.0	POTTERS	B145 & B146
GB48	Sep-6	Nov-15	MJ-H-51319-1	80.3	77.1	Pass	99.6*	82.4	17.3	1.3	0.0	POTTERS	B147 & B148
GB49	Sep-17	Nov-15	DSCB061719	72.7*	70.1	Pass	100.0	86.2	21.7	0.5	0.0	ISP	B149& B150
GB50	Sep-17	Nov-15	MJ-H-82119	83.0	79.9	Pass	98.4*	86.5	30.0	3.0	0.0	POTTERS	B151 & B152
Specification				Min. 75	Min. 70	Pass	100	75-95	15-35	0-5	0		

* Indicates result outside tolerance limits.

Test not required by Alberta Transportation

PER: _____ 15-Nov-19
DATE

Reviewed By: _____

Reporting of these results constitutes a testing service only. Engineering Interpretation or evaluation of the test results is provided only on written request.

GLASS BEADS TEST REPORT
 Project No.: EA16335



To: Alberta Transportation
 Technical Standards Branch
 2nd Floor, Twin Atria Building
 4999 - 98 Ave
 Edmonton, AB T6B 2X3

Distribution Addressee: Wood Environment & Infrastructure Solutions
 5671 - 70 Street
 Edmonton, AB
 Canada T6B 3P6
 Tel +1 (780) 436-2152
 Fax +1 (780) 377-3599

Attn: Rishi Adhikari, P.Eng.

Lab Number 2019	Date Received 2019	Date Reported 2019	Lot Number	Roundness (%)	Reflective (%)	Moisture Resistance	Sieve Analysis % Passing					Supplier	With Paint Batch Number 2019
							800	630	315	160	80		
GB62	Nov-12	Nov-29	MJ-H-80715	78.1	74.7	Pass	98.2*	85.8	20.0	2.0	0.0	POTTERS	B179 & B180
GB63	Nov-12	Nov-29	MJ-H-80715	80.0	76.3	Pass	99.9*	90.7	20.5	1.1	0.0	POTTERS	B181 & B182
Specification				Min. 75	Min. 70	Pass	100	75-95	15-35	0-5	0		

* Indicates result outside tolerance limits.

Test not required by Alberta Transportation

PER:  29-Nov-19

Reviewed By:  DATE

Reporting of these results constitutes a testing service only. Engineering Interpretation or evaluation of the test results is provided only on written request.