

TEST REPORT

Test Report Issued To:

COMPLETE INFRASTRUCTURE PVT LTD
 A-34, PHASE 2, MONGOLPURI INDUSTRIAL AREA,
 NEW DELHI, DELHI - 110034,
 INDIA

Test Report No: A1D230519007/D230519007-11
 Issue Date: 29-May-2023
 Sample Booking/Receipt Date: 19-May-2023
 Test Start Date: 24-May-2023
 Test Completion Date: 27-May-2023



Customer Relationship Number 73700

Sample Description :

BOLLARD Fabric wrapped Glass Wool panel of size 600*600*25mm

Testing for Life

Customer Reference No :

**Amendment Report to Test Report
 No:D230519007/D230519007-11 Dated:
 29-05-2023**

Kind Attention : MR. ANUJ GARG

E-Mail: accounts@completeinfra.com

Contact No: 7318152367

Sample Condition : Good

Performance of Test :

Sample Quantity (Approx) : 1 - SET

Sample Size (Approx) : na - mm

SAMPLE NOT DRAWN BY OUR LABORATORY. THE RESULTS RELATE ONLY TO THE ITEMS TESTED



Report Issued By

ULR-TC631423000005576F

Authenticity of report can be verified by mail at verification@spectrolab.in
 This is a Digitally Signed Report and hence doesn't require Physical Signature.

Legal Entity: Spectro Analytical Labs Private Limited (formerly Spectro Analytical Labs Limited), CIN : U74220DL1998PTC092698
 (part of Eurofins Scientific SE)

S-1, GNEPIP, Surajpur Industrial Area, Phase-V, Kasna, Greater Noida-201308 (India)
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TEST REPORT

Discipline: Mechanical
 Group: Building Materials

TEST REPORT FOR DETERMINING THE FLAME SPREAD AND SMOKE DEVELOPED INDEX

Product Name:

BOLLARD Fabric wrapped Glass Wool panel of size 600*600*25mm (Name given by test sponsor)

Test Standards:

ASTM E84-2021; Standard Test Method for Surface Burning Characteristics of Building Materials.

Testing Laboratory:

Spectro Analytical Labs Private Limited

S-1 GNEPIP, Surajpur Industrial Area

Kasna, Greater Noida, Phase – V

Gautam Budha Nagar (U.P.)

Pin Code: 201308

Ph: 0120-2341251/52

Specimen Verification:

Length : 600 mm

Width : 600 mm

Thickness : 25 mm

Sample Preparation: The sample was in sheet form having dimensions 25 mm in thickness and 600 mm in width and 600 mm in length. A number of sheets were used to spread over the tunnel to form the requisite specimen length. During testing the sample was self-supporting



Analyst Signature



TC-6314



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Authorised Signatory

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Results

Flame Spread Result

Calculated Flame Spread (CFS) 9.78

Flame Spread Index **10**

Smoke Developed Result

Calculated Smoke Developed 183.04

Smoke Developed Index **185**

Result: The tested specimen qualified for Class 1 as per IBC.

Classification Requirement as per IBC.

	Flame Spread Index	Smoke Development
Class 1 or A	0 - 25	450 Maximum
Class 2 or B	26 - 75	450 Maximum
Class 3 or C	76 - 200	450 Maximum

Correction Factor

CORRECTION FACTOR FOR CALCULATING FLAME SPREAD INDEX

- If this total area (A_T) is less than or equal to 97.5 ft·min then
The flame spread index shall be $FSI = 0.515 * A_T$.
- If the total area (A_T) is greater than 97.5 ft·min then
The flame spread index shall be $FSI = 4900 / (195 - A_T)$.
Here A_T represents Total Area i.e. $A_T = A_1 + A_2$
 A_1 = Area Under the curve where first peak is observed.
 A_2 = Area just above the curve in the line of First peak point.

CORRECTION FACTOR FOR CALCULATING SMOKE DEVELOPED INDEX

Smoke Developed (SD) is determined by dividing the total area under the obscuration curve by that of cement board and multiplying by 100. SD is then rounded to the nearest multiple of 5 if less than 200. SD values over 200 are rounded to the nearest multiple of 50.

Smoke Developed Index = $\frac{\text{Area under the Obscuration Curve}}{\text{Area under the Heptane Curve}} \times 100$



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Annexure A

Flame Spread Data

Time(minutes)	Distance (Feet)
1	2.5
2	3.5
3	3.0
4	2.5
5	2.0
6	1.5
7	1.0
8	1.0
9	1.0
10	1.0

Flame Spread data

Calculated Flame Spread (CFS)	9.78
Flame Spread Index	10
Maximum Flame Spread (Ft)	3.5 ft
Area under the Flame Spread Curve (Ft. Min)	19.0 ft. min.

Smoke Data

Calculated Smoke Developed	183.04
Smoke Developed Index	185
Area under the Smoke Curve (Ft. Min)	138.58
Area under Heptane Curve (Ft. Min)	75.71

The test duration was 10 minutes.



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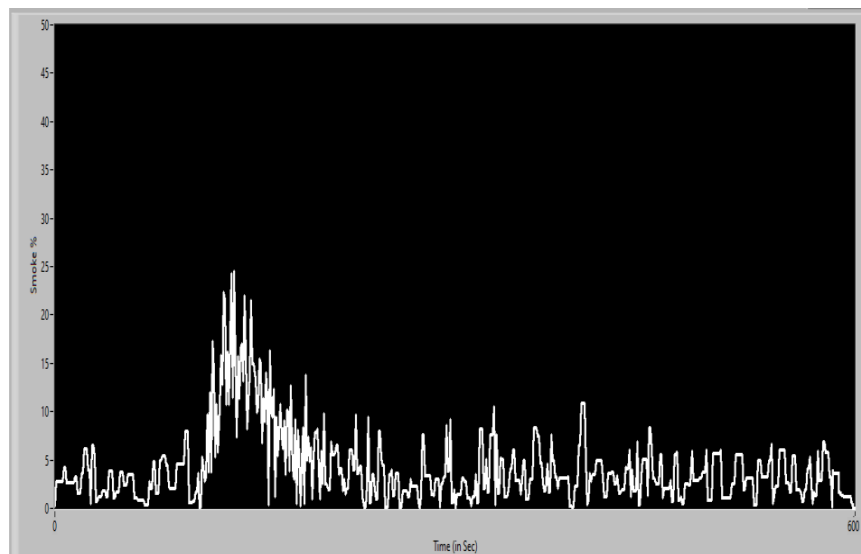
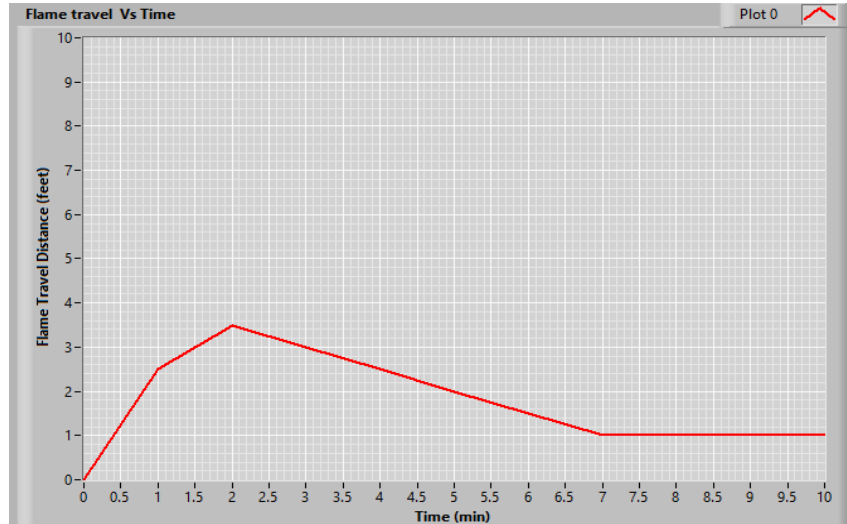
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Annexure B

GRAPHS



[Handwritten Signature]
Analyst Signature



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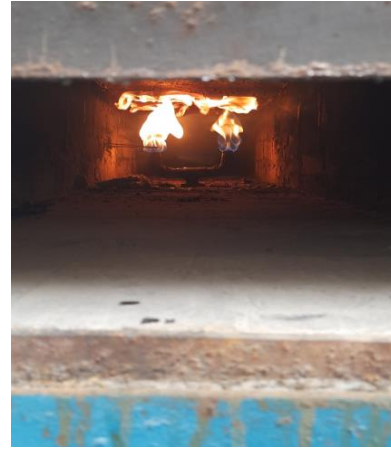
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TEST REPORT

Photographs



Before Test



During Test



After Test

Analyst Signature



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General Terms & Conditions

Spectro Analytical Labs Private Limited (formerly Spectro Analytical Labs Limited) undertakes to provide service to its customer subject to the terms & conditions mentioned here-

1. Area of Application

- 1.1 All Orders accepted by Spectro Analytical Labs Private Limited (formerly Spectro Analytical Labs Limited) (Collectively "ES") will be governed by these General Terms and Conditions of Sales (the "Terms and Conditions"), including orders placed by telephone which have not been confirmed in writing and orders made by delivery of samples. A contract with these Terms and Conditions comes into being when an order that has been placed with ES is accepted by ES. An order placed with ES is considered as accepted by ES when (a) ES proceeds to fulfil that order, without need for any written confirmation from ES or (b) ES accept the order in writing.
- 1.2 All reports will be issued with the legal name i.e. Spectro Analytical Labs Private Limited (formerly Spectro Analytical Labs Limited)
- 1.3 These Terms and Conditions supersede and replace all prior verbal or written price quotations and agreements between the parties and, unless specifically indicated otherwise therein, take precedence over all conflicting or inconsistent provisions of subsequent written agreements between the parties. No officer (other than the Managing Director of ES), employee, agent or subcontractor of ES has the authority to alter or waive any of these Terms and Conditions or to make any representation which conflicts with or purports to override any of these Terms and Conditions; and no such alteration, waiver or representation shall be binding upon ES, unless it is in writing and signed by the Managing Director of ES.

2. Placement of Order

- 2.1 A customer order will be valid only if it is sent by mail or fax or other electronic message on letterhead of the customer or by using ES-approved sample Test request form or electronic order forms and the commercial aspects of the order which are not specifically set out in these Terms and Conditions (including price, estimated turnaround times and delivery date) must be agreed at the time of the order. The customer must confirm in writing orders given by telephone immediately after they are made and will be deemed to have placed an order if the customer sends samples to ES quoting the customer reference. ES is not obligated to start any work unless the order is clear and it has been provided all required information.
- 2.2 Unless specifically accepted in writing and signed by the Managing Director of ES, any terms proposed or submitted by a customer at any time (including, but not limited to, terms or provisions in the customer's purchase order-instructions or other document) which differ from these Terms and Conditions are rejected as a material alteration of these Terms and Conditions and shall be of no force or effect. Furthermore, special terms or conditions of prior orders, including special pricing, will not automatically apply to subsequent orders. Each order accepted by ES will be treated as a separate contract between ES and the customer.
- 2.3 Any logistic service off-site of the laboratory must be paid in full, unless it has been cancelled or modified by the customer at least forty eight hours (48) in advance for collection services, ninety six (96) hours in advance for sampling services and one (1) week in advance for auditing services.

3. Price and Terms of Payment

- 3.1 If the acknowledgment of an order does not state otherwise, ES' prices apply "ex works", excluding packaging, which is charged separately. Any additional cost or disbursement (e.g. incurred by ES in connection with the order) must be paid by the customer.
- 3.2 Prices are exclusive of all applicable taxes (GST or Other taxes) and are based on tariffs in force at the day of the remittance of the order. Applicable taxes are those in force at the date of invoicing.
- 3.3 Unless specifically agreed otherwise by ES in its acceptance of an order, payment of all invoices is due strictly within 30 days of the invoice date. Any dispute about invoices must be raised within 30 days of the invoice date. The challenge of any test result will not entitle a customer to defer payment. Any invoice which remains outstanding after due date, may be additionally charged with an administrative penalty of Rupees Two hundred (Rs.200) and may carry interest as per MSMED Act.
- 3.4 Invoices are subject to a minimum invoice charge of Rupees Two Hundred fifty (Rs.250).
- 3.5 The invoice settlement method is Cheque, bank transfer or direct debit. Any other method of payment must receive prior agreement from ES. The customer undertakes to provide bank account details.
- 3.6 ES is entitled to require payment of up to 100% of the quoted order price as a condition of acceptance.

4. Duties of Customer in Delivering Samples or Materials

- 4.1 The samples or materials must be in a condition that makes the preparation of reports/analyses or the production of ordered products possible without difficulty. ES is entitled to conduct an initial examination of the samples or materials to check their condition before processing the samples, drawing up a report or using them in production. The customer shall bear the costs of this initial examination, if the samples or materials do not comply with the requirements described in this clause 4.1. If the result of the initial examination is that an analysis or production is impossible or is possible only under more difficult conditions than originally anticipated e.g. for example, because the samples or materials have been interspersed with foreign materials or substances that were not reported by the customer or are degraded ES shall be entitled to terminate or interrupt the order and the customer shall bear costs incurred by ES to that point.
- 4.2 The customer must ensure, and hereby warrants, that no sample poses any danger, inducing on its site, during transportation, in the laboratory or otherwise to ES premises, instruments, personnel or representatives. It is the customer's responsibility to insure compliance with hazardous waste regulations, including regarding information, transportation and disposal and to inform ES personnel or representatives about sample health and safety concerns, including any known or suspected toxic or other contaminant that may be present in the sample and its likely level of contamination as well as the risks to ES premises, instruments, personnel and representatives related to the contamination. The customer shall be responsible for, and indemnifies ES against, all costs, damages, liabilities and injuries that may be caused to or incurred by ES or its personnel or representatives including on the sampling site, during the transportation or in the laboratory by the customer's sample or by sampling site conditions. The customer shall bear all extraordinary costs for adequate disposal of hazardous waste resulting from the sample, whether or not described as hazardous waste. At ES' request, the customer must provide ES with the exact composition of the samples.

5. Property Rights on Sample Material and Sample Storage

- 5.1 All samples become the property of ES to the extent necessary for the performance of the order. Unless the customer pays for storage, ES shall have no obligation or liability for samples sent to ES for storage, including samples requiring refrigeration however ES retains the sample for three months. If the customer pays for further storage, ES will take commercially reasonable steps to store the samples, according to professional practice.
- 5.2 Sample will be kept for one month from the date of release of test report unless specified by regulatory or ES and the customer have agreed in writing on the terms of ES' retention of the sample. ES also can dispose of or destroy the samples after the agreed upon retention period, without further notice and at customer's cost, should an extra cost for ES arise to comply with any regulation (for example, with respect to disposal of hazardous waste). If the customer requests the return of unneeded sample material, ES will return them to the customer, at the customer's cost and risk.
- 5.3 The sample description is not verified in all cases and is given "as described by customer". Sample not drawn by us and analysis conducted on "as received bases". Unless specified otherwise
- 5.4 Lab retain the copy of report for 2 years from the date of release of test report or instructed by customer or any regulatory requirement and authenticity of test report can be verified within 2 years by sending mail at verification@spectrolab.in

6. Delivery Dates, Turnaround Time

- 6.1 Delivery dates and turnaround times are estimates and do not constitute a commitment by ES. Nevertheless, ES shall make commercially reasonable efforts to meet its estimated deadlines.
- 6.2 Results are generally sent by email and/or by mail, or via other electronic means, to the attention of the persons indicated by the customer in the order, promptly after the analysis is completed.

7. Transfer of Property

- 7.1 Title in any analysis results, products, equipment, software or similar supplied by ES to the customer will remain with ES until all invoices in respect thereof have been paid by the customer in full, and until such full payment, the customer shall have no property rights or other rights to use them. In addition, even if ES has accepted and begun to fulfil an order, ES has the right at any time stop processing that order and to stop doing any work for a customer if that customer is late in paying any amount due to ES, whether for that or any other order.
- 7.2 Even after payment in full by the customer, ES shall retain the right to store, use and publish all analysis results in an anonymous form which does not identify the customer.

8. Limited Warranties and responsibilities

- 8.1 Orders are handled in the conditions available to ES in accordance with the current state of technology and methods developed and generally applied by ES and the results may not always be 100% exact and/ or relevant. Analyses, interpretations, assessments, consulting work and conclusions are prepared with a commercially reasonable degree of care but ES cannot guarantee that these will always be correct or absolute. This limited warranty expires three months after the delivery date of the samples, if the acknowledgement of the order does not specifically state otherwise. In all cases, the customer must independently verify the validity of any results, interpretations, assessments and conclusions supplied by ES, if it wishes to rely on the same in respect of matters of importance and shall do so at its own risk.
- 8.2 Each testing report relates exclusively to the sample analyzed by ES. If ES has not expressly been mandated and paid for the definition of the sampling plan (including which samples of which raw materials and finished products and at which frequent should be analyzed) and the definition of the precise range of analysis to be performed or if the customer has not followed ES recommendations, ES shall not bear any responsibility if the sampling plan and/or the range of analysis to be performed prove to be insufficient or inappropriate.
- 8.3 The customer is responsible for the proper delivery of samples sent to ES for examination/analyses or materials sent for production. Unless otherwise specifically agreed in writing by ES, ES accepts no responsibility for any loss or damage, which may occur to any sample in transit or to any facility or site where logistics services are being delivered. The customer will at all times be liable for the security, packaging and insurance of the sample from its dispatch until it is delivered to the offices or the laboratories of ES. ES will use commercially reasonable care in handling and storing samples, but ES shall not be held responsible for any loss or destruction of samples even after their receipt at its laboratories.
- 8.4 The customer warrants and represents to ES that all samples sent to ES for analysis are safe and in a stable condition and undertakes to indemnify ES for any losses, injuries, claims and costs which ES, or its personnel, may suffer as a result of any sample not being in a safe or stable condition, notwithstanding that the customer may have given an indication on the sample or any order form of any perceived problem with the sample. The customer must always inform ES in writing prior to shipment and label the packaging, samples and/ or containers appropriately, if the samples are dangerous or otherwise of a hazardous nature.
- 8.5 Unless explicitly agreed in writing by all parties, the contractual relationship shall be exclusively between the customer and ES. There shall be no third party beneficiary or collateral warranty relating to any order and the customer shall indemnify and hold ES harmless from and against any and all third party claims in any way relating to the customer or to the order by the customer.
- 8.6 The result given on the test report refer only to tested samples and application parameters.
- 8.7 Any complaints about the test report should be communicated in writing within 7 days of the issue of the report

9. Limitation of Liability

- 9.1 Except to the extent that such limitations are not permitted or void under applicable law: (a) ES (together with its workers, office clerks, employees, representatives, managers, officers, directors, agents and consultants and all ES partners and affiliates, the "ES Indemnifying Parties") shall be liable only for the proven direct and immediate damage caused by the ES Indemnifying Party's willful misconduct in connection with the performance of an order and then, only if ES has received written notice thereof not later than six (6) months after the date of the customer's knowledge of the relevant claim (unless any longer period is prescribed under applicable law and cannot be contractually limited), and (b) in all cases (whether arising under contract, tort, negligence, strict liability, through indemnification or otherwise), the ES Indemnifying Parties' liability per claim or series of related claims, and the customer's exclusive remedy, with respect to ES' services which fall under these Terms and Conditions, shall be limited to the lesser of: (i) the direct and immediate loss or damage caused by the ES Indemnifying Party's willful misconduct in connection with the performance of the order and (ii) invoice amount ES actually received from the customer in relation to the order subject to maximum of Rs. 1 lac (Rupees One Lac)
- 9.2 The ES Indemnifying Parties shall not be liable for any indirect, direct or consequential loss or damage (including, but not limited to, loss of business, profits, goodwill, and business opportunities or similar) incurred by the customer or by any third party.
- 9.3 It is a condition of ES' acceptance of an order that the customer indemnifies the ES Indemnifying Parties for any losses, injuries, claims and costs which the ES Indemnifying Parties may suffer as a result of arising from or in any way connected with its role under or services or products or software provided pursuant to these Terms and Conditions, except to the extent that the ES Indemnifying Parties are required to bear them according to these Terms and Conditions, and by placing an order the customer agrees to provide that indemnification.

10. Repeated Analysis

10. Objections to test results can be made within thirty (30) days after the customer receives the results. However, unless it would appear that the results of the repeated analysis do not match those of the first one, the customer shall bear the costs of the repeat testing or review. Furthermore, a repeated analysis will be possible only if ES has a sufficient amount of the original sample on hand when it receives the customer's objection. Otherwise the customer will be required to pay all costs, including sampling, transportation, analytical and disposal costs for the repeat analysis. No retest request will be accepted after return of tested sample.

11. Force Majeure

11. ES cannot be held liable for delays, errors, damages or other problems caused by events or circumstances which are unforeseen or beyond ES' reasonable control, or which result from compliance with governmental requests, laws and regulations.

12. Confidentiality & Processing of Customer Data

- 12.1 ES shall be entitled to save and process personal or commercial data received from the customer in any way, no matter whether such data stem from the customer directly or from a third party and shall use commercially reasonable efforts to keep such data confidential, in compliance with applicable law.
- 12.2 ES shall use commercially reasonable efforts to keep all analysis results and service reports confidential, subject to ES' rights set forth in clause 7.2 and the right to use them in order to demonstrate its entitlement to payment for services rendered.
- 12.3 Analysis results are prepared and supplied exclusively for the use of the customer and should not be divulged to a third party for any purposes without the prior written agreement of ES. In addition, the customer is required to maintain secrecy concerning all services provided by ES and their results as well as the composition of products and software delivered by ES. Analysis results are not to be publicly disclosed or exploited without the prior written consent of ES. Even if such written consent is given by ES, the customer (a) remains responsible for any consequences due to the divulgence of such results to a third party and any reliance of such third party on such results and (b) hereby agrees to indemnify the ES Indemnified Parties against any liability which the ES Indemnified Parties may incur as a result of such divulgence or any such third party reliance.
- 12.4 Test report certificate shall not be reproduced except in full, without written permission of laboratory
- 12.5 Test report certificate shall not be reproduced wholly or in parts and cannot be used as an evidence in a court of law and shall not be used in advertising media, without written permission of laboratory

13. Disclaimer and Miscellaneous

- 13.1 ALL TERMS, CONDITIONS AND WARRANTIES (INCLUDING ANY IMPLIED WARRANTY AS TO MERCHANTABILITY QUALITY OR FITNESS FOR A PARTICULAR PURPOSE) AS TO THE MANNER, QUALITY AND TIMING OF THE TESTING SERVICE AND RESULTS, EQUIPMENT, PRODUCTS OR SOFTWARE SUPPLIED BY ES ARE EXCLUDED TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW. THE WARRANTIES, OBLIGATIONS AND LIABILITIES OF ES CONTAINED IN THESE TERMS AND CONDITIONS ARE EXCLUSIVE.
- 13.2 These Terms and Conditions may be modified in writing from time to time by ES and orders will be governed by the most recent version of these Terms and Conditions that is in effect at the time ES accepts the order.
- 13.3 Should a court waive, limit or hold to be invalid, illegal or unenforceable any part of these Terms and Conditions, all other parts shall still apply to the greatest extent possible.
- 13.4 Failure by either ES or the customer to exercise the rights under these Terms and Conditions shall not constitute a waiver or forfeiture of such rights.

14. Governing Law Jurisdiction

- 14.1 The construction, validity and performance of these Terms and Conditions shall be governed by the laws and the commercial courts of Delhi Jurisdiction, Delhi State, India in which the registered office of the ES company which accepted the order in question is located (including in cases involving multiple counsels for the defense or third-party respondents), which shall have exclusive jurisdiction.

* End of Report *