



## HIGHWAY ROAD REFLECTOR ALUMINIUM ROAD STUD

### SPECIFICATION :



- **Model No. :** AL- 108
- **Trademark :** Alcolite
- **HSN Code :** 76169910
- **Net Weight :** 280 grams
- **Stud Size :** 100X100X22 mm
- **Lens Size :** 78 mm X 23mm
- **Origin :** India
- **Reflector :** PMMA/ Inbuilt Fixed Reflector



# SHRIRAM INSTITUTE FOR INDUSTRIAL RESEARCH

(A unit of Shriram Scientific and Industrial Research Foundation)

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gad@shriraminstitute.org

## TEST REPORT

NO : C1/0000362187

Issued To :

Client Code : (DLHI01A3204)  
ASHU ENTERPRISES,  
H-14, DSIDC INDUSTRIAL COMPLEX,  
UDYOG NAGAR, ROHTAK ROAD,  
NANGLOI  
DELHI  
DELHI-H0041  
Kind Attn: MS. SMRITI

Date of issue : 14-06-2024  
Job No : 2405-1-141-2526  
Booking No : RG2425/1/2037  
Booking Date : 30-05-2024  
Customer Ref No : EMAIL  
Customer Ref Dt : 27-05-2024  
Location : Laboratory

Job No- 2405-1-141-2526

Sample Detail :

ONE SAMPLE (QUANTITY : 15 NOS) DESCRIBED AS ALCOLITE ALUMINIUM ROAD STUD AL-108, WAS RECEIVED.  
"THE SAMPLING WAS NOT CARRIED OUT BY SHRIRAM INSTITUTE FOR INDUSTRIAL RESEARCH. THE SAMPLE DESCRIPTION PROVIDED IN THE TEST CERTIFICATE ARE BASED ON DECLARATION BY THE CUSTOMER."

S.No.	Tests	Results	Requirements as per Morth 804	Conformity	Protocol / Method used
1	Design				Morth 804.3
	(a) The slope or retro reflective surface, °	35	35±5	Yes	
	(b) Surface area of retroreflective surface, cm <sup>2</sup>	14.6	13 Minimum	Yes	
2	Identification of Material	Aluminium	Aluminium alloy	Yes	Morth 804.6
3	Compressive Strength, kgf (Breaking Strength)	85920	13635 Minimum	Yes	ASTM 4280-20
4	Colour	Grey	---	---	ASTM D 4280-20

Note : Conformity with respect to Test at S.No.4 could not be given as requirement is not mentioned in ASTM D 4280-20

Date of Receipt : 30-05-2024

Date of Start : 30-05-2024

Date of Completion : 13-06-2024

End of report

Reviewed and Authorized by  
EMPLOYEE CODE: ( 2159 )






Note: The Results relate only to the items tested / calibrated above.

Scanned copies/photocopies or any other copies should be authenticated by reference to the original report.

**TEST REPORT**  
*(Development Test)*

Test Report No. C D 0 L T 6 6 1 1	Date:	11.07.2024
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- 1.0 NAME AND ADDRESS OF THE CUSTOMER** : M/s. Alcolite India Road Safety Pvt. Ltd.  
H-14, DSIIDC Industrial Complex, Ground Floor, Front side half portion, Rohtak Road, Nangloi, West Delhi, Udyog Nagar – 110041
- 2.0 CUSTOMER REFERENCE** : IOCS Reg. No: CCDALCTTGPHL177437  
Dated: 03.06.2024
- 3.0 DESCRIPTION OF TEST COMPONENT:**  
Component : Alcolite Aluminum Road Stud, Qty: 3.Nos  
ICAT Sample Identification : ICAT/PHL/177437/RPM/RED-WHITE-YELLOW/01-02-FACE/2024-25
- Manufactured by : Alcolite India Road Safety Pvt. Ltd.  
Trade Name/Trademark : Alcolite / Model No.: AL-108
- 4.0 DATE OF RECEIPT OF SAMPLES** : 05.06.2024
- 5.0 CONDITION OF SAMPLES** : No damage observed and found satisfactory.
- 6.0 FUNCTIONAL VERIFICATION** : Functionality checked and found satisfactory.
- 7.0 DATE OF PERFORMANCE TEST** : 11.07.2024
- 8.0 OBJECTIVE AND PROCEDURE:**  
To conduct Retroreflectivity/Coefficient of Luminous Intensity as per Cl. No. 3.1.2 and 6.2.1 and Table No. 1 of ASTM D4280 on specific request of customer as a part of development exercise.
- 9.0 TESTRESULTS:**  
Please refer to Test Results and Photographs in Annexure-I and Annexure-II of this report, respectively.

Prepared By	Checked & Authorized By	Approved By	 
			
AKASH BISWAS Asst. Manager	GIRISH SINGH Dy. Manager	PRITAM SINGH SAWARIYA Sr. Manager	




**Test Report No. C D 0 L T 6 6 1 1**

**Date:**

**11.07.2024**

**DISCLAIMER**

- 1) This test report pertains only to the test samples / components / parts/ assemblies/ gensets/ materials /fuels/chemicals/engines/vehicles/Agri. Tractors etc. actually tested /witnessed / verified by ICAT in the presented condition based on the documents / information produced / submitted by the customer.
- 2) The issuance of this test report alone does not indicate any measure of approval, certification, supervision, COP, control of quality surveillance by ICAT of the test samples / items/ components.
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Prepared By	Checked & Authorized By	 <p style="text-align: right;">Page 2 of 5 [177437]</p>
		
<p><b>AKASH BISWAS</b> Asst. Manager</p>	<p><b>GIRISH SINGH</b> Dy. Manager</p>	

Test Report No. C D 0 L T 6 6 1 1

Date: 11.07.2024

ANNEXURE -I

1.0 TEST RESULTS:

1.1.3 Retroreflectivity / Coefficient of Luminous Intensity (C.I.L.) (As per ASTM D4280-18, Cl. No. 3.1.2 and 6.2.1 and Table No. 1):

TEST RESULTS / OBSERVATION:

Sample Id: RED FACE#1 : ICAT/PHL/177437/RPM/RED/01-FACE/2024-25 &

RED FACE#2 : ICAT/PHL/177437/RPM/RED/02-FACE/2024-25

Sample Id: WHITE FACE#1 : ICAT/PHL/177437/RPM/WHITE/01-FACE/2024-25 &




WHITE FACE#2 : ICAT/PHL/177437/RPM/WHITE/02-FACE/2024-25

Sample Id: YELLOW FACE#1 : ICAT/PHL/177437/RPM/YELLOW/01-FACE/2024-25 &

YELLOW FACE#2 : ICAT/PHL/177437/RPM/YELLOW/02-FACE/2024-25

Entrance Angle		0°		+20°		-20°	
Observation Angle		0.2° (in mcd/lux)	Min. C.I.L. required. (in mcd/lux)	0.2° (in mcd/lux)	Min. C.I.L. required. (in mcd/lux)	0.2° (in mcd/lux)	Min. C.I.L. required. (in mcd/lux)
Colour: Red	Face # 1	343.0	70.0	179.4	28.0	172.4	28.0
	Face # 2	380.0	70.0	253.6	28.0	236.0	28.0

Entrance Angle		0°		+20°		-20°	
Observation Angle		0.2° (in mcd/lux)	Min. C.I.L. required. (in mcd/lux)	0.2° (in mcd/lux)	Min. C.I.L. required. (in mcd/lux)	0.2° (in mcd/lux)	Min. C.I.L. required. (in mcd/lux)
Colour: White	Face # 1	1362.0	279.0	654.0	112.0	863.0	112.0
	Face # 2	1249.0	279.0	627.0	112.0	490.0	112.0

Prepared By	Checked & Authorized By	
		
AKASH BISWAS	GIRISH SINGH	
Asst. Manager	Dy. Manager	

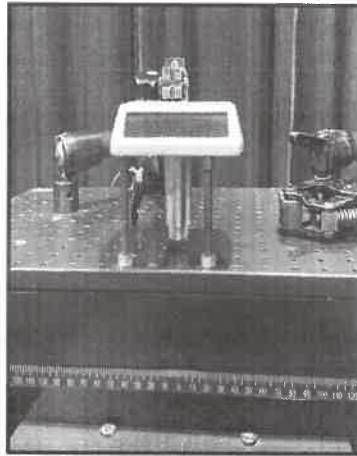
Test Report No. C D 0 L T 6 6 1 1

Date: 11.07.2024




Entrance Angle		0°		+20°		-20°	
Observation Angle		0.2° (in mcd/lux)	Min. C.I.L. required. (in mcd/lux)	0.2° (in mcd/lux)	Min. C.I.L. required. (in mcd/lux)	0.2° (in mcd/lux)	Min. C.I.L. required. (in mcd/lux)
Colour: Yellow	Face # 1	1041.0	167.0	615.0	67.0	617.0	67.0
	Face # 2	1069.0	167.0	464.0	67.0	528.0	67.0

ANNEXURE -II

Photographs of the Samples:



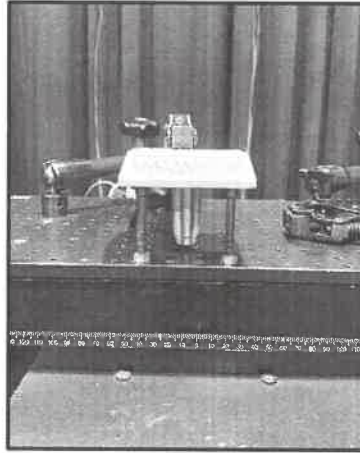
Sample Id: RED FACE#1 : ICAT/PHL/177437/RPM/RED/01-FACE/2024-25 &  
RED FACE#2 : ICAT/PHL/177437/RPM/RED/02-FACE/2024-25

Prepared By	Checked & Authorized By	 INTERNATIONAL CENTRE FOR AUTOMOTIVE TECHNOLOGY Innovation • Service • Excellence MANESAR
		
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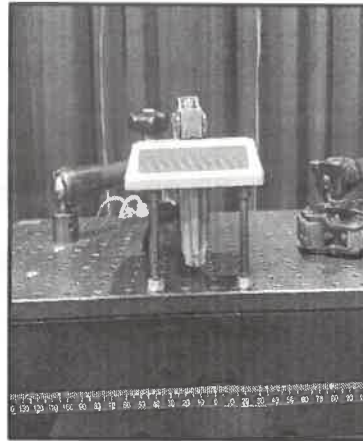
Test Report No. C D 0 L T 6 6 1 1

Date:




11.07.2024



Sample Id: WHITE FACE#1 : ICAT/PHL/177437/RPM/WHITE/01-FACE/2024-25 &  
WHITE FACE#2 :: ICAT/PHL/177437/RPM/WHITE/02-FACE/2024-25



Sample Id: YELLOW FACE#1 : ICAT/PHL/177437/RPM/YELLOW/01-FACE/2024-25 &  
YELLOW FACE#2 : ICAT/PHL/177437/RPM/YELLOW/02-FACE/2024-25

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