



GOVERNMENT OF HARYANA / हरियाणा सरकार
TRANSPORT COMMISSIONER HARYANA, CHANDIGARH
 परिवहन आयुक्त हरियाणा, चंडीगढ़

To

**All Regional Transport Authorities-cum-
 Registering Authorities (MV) in the State.**

Memo No. 26838-860 /T-3/ST-II

Dated: 13-07-2020

Subject:- Approval for fitment of reflective tapes on transport vehicles.

Reference to this office letter no. 41271-291/T-3/ST-II dated 23.10.2019 on the subject cited above.

M/s SYN Auto Solutions Pvt Ltd, Gali no. 11, Kadipur Industrial Area, Gurugram-122001 has submitted application for grant of approval for fitment of reflective tapes/rear marking plates/reflectors on transport vehicles in the State of Haryana as per the requirements of the Transport Department, Haryana No. 41271-291/T-3/ST-II dated 23.10.2019 and Public Notice dated 15.11.2019. The said firm has submitted the required documents including the Type Approval Certificate and Test reports of their reflective tapes and other information as under:-

Sr.no.	Details	Document submitted
1.	Name of the company.	M/s SYN Auto Solutions Pvt Ltd, Gali no. 11, Kadipur Industrial Area, Gurugram-122001 a Authorised distributor/ Indian Agent of M/s Wenzhou Xiangying Reflective Materials Science Technology Co. Ltd, No. 828 Lingang Road, Longgang Town, Cangnan County, Wenzhou City, Zhejiang Province, 325802, P.R China
2.	Name of the manufacturer	M/s Wenzhou Xiangying Reflective Materials Science Technology Co. Ltd, No. 828 Lingang Road, Longgang Town, Cangnan County, Wenzhou City, Zhejiang Province, 325802, P.R China
3.	Is Company registered with the Registrar of Companies as per the Companies Act, 1956 (as amended from time to time) or not	YES- SUBMITTED
4.	Name of the authorized testing agency,	ICAT, MANESAR
5.	Type Approval Certificate with number and date along with its date of validity.	Certificate No. CK6917, DATED 13.11.2019(Rear Marking Plate) & Certificate No. CK6129, DATED 06.03.2019 (Reflective-tape-red/white/yellow) & Certificate (COP) No. CCOLO-6938, DATED 21.11.2019 (Reflective-tape-red/white/yellow issued by ICAT, MANESAR to M/s Wenzhou Xiangying Reflective Materials Science Technology Co. Ltd, No. 828 Lingang Road, Longgang Town, Cangnan County, Wenzhou City, Zhejiang Province, 325802, P.R China
6.	Maximum rates per meter including fitment charges	1. SYN C3 Class @ Rs. 500/- Rear Marking Plate. 2. SYN C4 Class @ Rs. 500/- Rear Marking Plate. 3. SYN-01 @ Rs. 40/-Per meter (Red Reflective tape) 4. SYN-02 @ Rs. 40/-Per meter (Yellow Reflective tape) 5. SYN-03 @ Rs. 40/-Per meter (White Reflective tape)
7.	Undertaking by the manufacturer that approval/operations with respect to retro reflective tapes, rear: marking plates and circular reflectors have not been suspended/cancelled/black listed by any State/Central Government	Undertaking approval/operations with respect to retro reflective tapes, rear: marking plates and circular reflectors have not been suspended/cancelled/black listed by any State/Central Government is submitted by M/s SYN Auto Solutions Pvt Ltd, Gali no. 11, Kadipur Industrial Area, Gurugram-122001
8.	Undertaking that the Manufacturer must not have been prosecuted convicted and no investigation should be pending against such	Undertaking that the Manufacturer have not been prosecuted convicted and no investigation is pending against manufacturer for infringement of Intellectual Property Rights of any third party or entity the provisions of

Office: 30 Bays Building, 2nd Floor, Sector 17-B, Chandigarh - 160017 (India)

Telephone: 91(0172)-2784359, 2701290, 2700541 Fax: 91(0172)2700510 e-mail: stcharyana@hry.nic.in website: haryanatransport.gov.in

कार्यालय: 30 खण्ड बिल्डिंग, दूसरा तल, सेक्टर 17 बी, चंडीगढ़-160017 (भारत)



GOVERNMENT OF HARYANA / हरियाणा सरकार
TRANSPORT COMMISSIONER HARYANA, CHANDIGARH
परिवहन आयुक्त हरियाणा, चंडीगढ़

manufacturer for infringement of Intellectual Property Rights of any third party or entity the provisions of The Patents Act, Copyright Act and/or trademark Act	The Patents Act, Copyright Act and/or trademark Act has been submitted by M/s SYN Auto Solutions Pvt Ltd, Gali no. 11, Kadipur Industrial Area, Gurugram-122001
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You are requested to accept the reflective tapes of the **M/s SYN Auto Solutions Pvt Ltd, Gali no. 11, Kadipur Industrial Area, Gurugram-122001** in respect for the affixation on the transport vehicles. The said list is valid till 30.09.2013. It should be ensured that the other requirements of the said letter no. 59501-523/T-3/ST-II, dated 18.12.2018 and relevant provisions of the Motor Vehicles Act/Rules are fully complied with in the matter of affixation of reflective tapes/rear marking plates. Proper computerized record of the reflective tapes/rear marking plates affixed on transport vehicles should be maintained.

Dated 10.07.2020

Sd/-
S S PHULIA, IAS
Transport Commissioner,
Haryana, Chandigarh.

Endst. No. 26861

/T-3/ST-II

Dated:- 13-07-2020

A copy of the above is forwarded to **M/s SYN Auto Solutions Pvt Ltd, Gali no. 11, Kadipur Industrial Area, Gurugram-122001** with reference to their application dated 22.11.2019. An attested copy of test report should be submitted to the Secretary, Regional Transport Authority, along with the copy of invoice and fitment certificate in respect of each reflective tapes/rear marking plates affixed on transport vehicles. Further, no reflective tapes should be sold after the validity of the Type Approval Certificate is over.

(Varinder Sharma)
Superintendent,
O/o Transport Commissioner,
Haryana, Chandigarh.

CC.

Jr. Programmer (HQ) for uploading the circular on the web-site alongwith the certificate issued by the authorized agency and Maximum rates per meter including fitment charges of reflective tapes/rear marking plates submitted by **M/s SYN Auto Solutions Pvt Ltd, Gali no. 11, Kadipur Industrial Area, Gurugram-122001**.



Mob. : 8750794122
9711812106

SYN AUTO SOLUTIONS PVT. LTD.

Gali No.11, Kadipur Industrial Area, Gurgaon, Haryana - 122 001

E-mail: synautosolutionspvt.ltd@gmail.com

CIN No. : U35999RJ2013PTC041689

GSTIN : 06AASCS7473C1ZZ

Ref. No.

Date : 07-02-19

To whom it may concern

Following are the maximum price including fitment Charges.

1. Reflective Tapes.

Model No.	Rate
SYN-01	Rs. 90/- per meter
SYN-02	Rs. 90/- per meter
SYN-03	Rs. 90/- per meter

2. Rear marking plates

	Rate
C3 Class	Rs. 500/-
C4 Class	Rs. 500/-

For SYN Autosolutions Pvt. Ltd.

Director

温州祥盈反光材料科技有限公司

WENZHOU XIANGYING REFLECTIVE MATERIALS SCIENCE TECHNOLOGY CO., LTD

Reflective Tapes, Traffic Signs, Road Cones, Reflectors, Reflective Vests & Warning Tapes

Certificate for Uniform Social Credit Code: 91330327MA2854HH3T / CR Code: 33039680QH
BACAO PINGAN VILLAGE, LONGGANG TOWN, CANGNAN, WENZHOU, ZHEJIANG PROVINCE (IN THE WENZHOU ORIENTAL PAINT CO., LTD)
TEL: 0577-64510008 / FAX: 0577-64510008 / ATTN: Jenna Leon / MOB: 0086 15658731885 / EMAIL: jenna.cheng@wxyzyp.com

Date-15th November 2018

Memorandum of Understanding

MOU between Mr. Yaspal Kumar Raghav- Director M/s. M/s. SYN AUTO SOLUTIONS PVT LTD, GALI NO.11 KADIPR INDUSTRIAL AREA, GURGAON, HARYANA-122001 and JENNA LEON-Manager-Sales & Service division M/s. WENZHOU XIANGYING REFLECTIVE MATERIALS SCIENCE TECHNOLOGY CO LTD, NO 828 LINGANG ROAD LUPU COMMUNITY LONGGANG TOWN WENZHOU CITY ZHEJIANG PROVINCE CHINA P C 325802.

This Memorandum of Agreement establishes the guidelines for collaboration between Mr. Yaspal Kumar Raghav- Director M/s. M/s. SYN AUTO SOLUTIONS PVT LTD, GALI NO.11 KADIPR INDUSTRIAL AREA, GURGAON, HARYANA-122001 and JENNA LEON-Manager-Sales & Service division M/s. WENZHOU XIANGYING REFLECTIVE MATERIALS SCIENCE TECHNOLOGY CO LTD, NO 828 LINGANG ROAD LUPU COMMUNITY LONGGANG TOWN WENZHOU CITY ZHEJIANG PROVINCE CHINA P C 325802. In the delivery and manufacturing for Retro Reflective Tapes as per sample provided for Development test and Type Test with International Center for Automotive Technology (India) as per norms/ parameter describe in AIS 090. Mr. Yaspal Kumar Raghav- Director M/s. M/s. SYN AUTO SOLUTIONS PVT LTD, GALI NO.11 KADIPR INDUSTRIAL AREA, GURGAON, HARYANA-122001 and JENNA LEON-Manager-Sales & Service division M/s. WENZHOU XIANGYING REFLECTIVE MATERIALS SCIENCE TECHNOLOGY CO LTD, NO 828 LINGANG ROAD LUPU COMMUNITY LONGGANG TOWN WENZHOU CITY ZHEJIANG PROVINCE CHINA P C 325802, is agree with same and committed to Manufacture and supply the said product in future as per confirmation by customer Mr. Yaspal Kumar Raghav- Director M/s. M/s. SYN AUTO SOLUTIONS PVT LTD, GALI NO.11 KADIPR INDUSTRIAL AREA, GURGAON, HARYANA-122001

Between Mr. Yaspal Kumar Raghav- Director M/s. SYN AUTO SOLUTIONS PVT LTD, GALI NO.11 KADIPR INDUSTRIAL AREA, GURGAON, HARYANA-122001 and JENNA LEON-Manager-Sales & Service division M/s. WENZHOU XIANGYING REFLECTIVE MATERIALS SCIENCE TECHNOLOGY CO LTD, NO 828 LINGANG ROAD LUPU COMMUNITY LONGGANG TOWN WENZHOU CITY ZHEJIANG PROVINCE CHINA P C 325802 hereby agree to work together for joint

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CamScanner

ATTESTED TO BE TRUE COPY

B.S. MARKOTA, NOTARY, CHANDIGARH



温州祥盈反光材料科技有限公司

WENZHOU XIANGYING REFLECTIVE MATERIALS SCIENCE TECHNOLOGY CO.,LTD

Reflective Tapes, Traffic Signs, Road Cones, Reflectors, Reflective Vests & Warning Tapes

1. M/s. WENZHOU XIANGYING REFLECTIVE MATERIALS SCIENCE TECHNOLOGY CO LTD will not supply in India the said product without permission of M/s. SYN AUTO SOLUTIONS PVT LTD.
2. M/s. WENZHOU XIANGYING REFLECTIVE MATERIALS SCIENCE TECHNOLOGY CO LTD is committed to support in plant visit and all process related product certification.
3. M/s. SYN AUTO SOLUTIONS PVT LTD, is committed to purchase the said product regularly as per approval of product.
4. Jointly identify and support reporting requirements of each organization.

DURATION: 5 year

This MOU is at-will and may be modified with the mutual consent of the authorized individuals Director of M/s. SYN AUTO SOLUTIONS PVT LTD, GALI NO.11 KADIPR INDUSTRIAL AREA, GURGAON, HARYANA-122001 and Manager-Sales & Service division/Auth. Person of M/s. WENZHOU XIANGYING REFLECTIVE MATERIALS SCIENCE TECHNOLOGY CO LTD, NO 828 LINGANG ROAD LUPU COMMUNITY LONGGANG TOWN WENZHOU CITY ZHEJIANG PROVINCE CHINA P C 325802, after 5 (Five Year) from 15th November 2018.

Signed,

Name- Yaspal Kumar Raghav- Director

Organization- M/s. SYN AUTO SOLUTIONS PVT LTD,

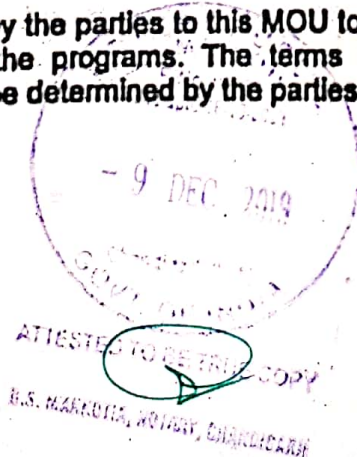
Name- JENNA LEON -Manager-Sales & Service division

Organization- M/s. WENZHOU XIANGYING REFLECTIVE MATERIALS SCIENCE TECHNOLOGY CO LTD,

Staff

It is agreed by the parties to this MOU to jointly appoint a suitably qualified Manager to manage the programs. The terms and conditions and remuneration for this position will be determined by the parties to this agreement.

Jenna



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INTERNATIONAL CENTRE FOR AUTOMOTIVE TECHNOLOGY

[A Division of NATRIP Implementation Society (NATIS), Govt. of India]

COP Certificate No. **C C O L O 6938**

Date : 21st NOV 2019

Cert	Dwg	Total
1	0	01 pgs

CERTIFICATE FOR CONFORMITY OF PRODUCTION


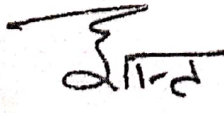


(For compliance to AIS - 037)

Non- Transferable

1	Name of the Applicant :	M/s. SYN AUTO SOLUTIONS PVT. LTD.
2	Address of the Applicant :	Gali No. 11 Kadipur Industrial Area, Gurgaon Haryana-122001.
3	Manufacturer of :	Retro Reflecting Tape : White, Yellow & Red
4	Name of the Manufacturer :	M/s. Wenzhou Xiangying Reflective Materials Science Technology Co., Ltd.
5	Address of the Manufacturing Plant:	No. 828 Lingang Road, Longgang Town, Cangnan County, Wenzhou City, Zhejiang Province, 325802, P.R. China.

Meets all the test requirements as per AIS: 090 (Rev. 1) as published on February 2019 as well as the requirements of Conformity of Production (COP) in accordance with Automotive Industry Standard AIS-037 with its Amend. No. 8.

Valid Until: * May change subjected to any further amendment in AIS : 037	30 th September 2021
Reference test report number:	"C T O L O 6 9 3 7" Dated: 21.11.2019
Previous COP Certificate number :	NA

ICAT Reference	CCCSYNAOHPHL70474 dated 03-Jul-2019	Please turn over for DISCLAIMER	
AUTHORISED SIGNATORY			
 ICAT MADHUSUDAN JOSHI	 ICAT PAMELA TIKKU	 ICAT DINESH TYAGI	 ICAT Page 1 of 1



INTERNATIONAL CENTRE FOR AUTOMOTIVE TECHNOLOGY

[A Division of NATRIP Implementation Society (NATIS), Govt. of India]

TAC/Reference No. **C K 6 9 1 7**

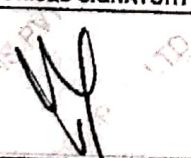
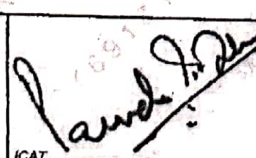
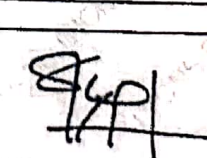
Date : 13th NOV 2019

Cert	Dwg	Total
1	1	02 pgs

TYPE APPROVAL CERTIFICATE

(For compliance to AIS - 037)

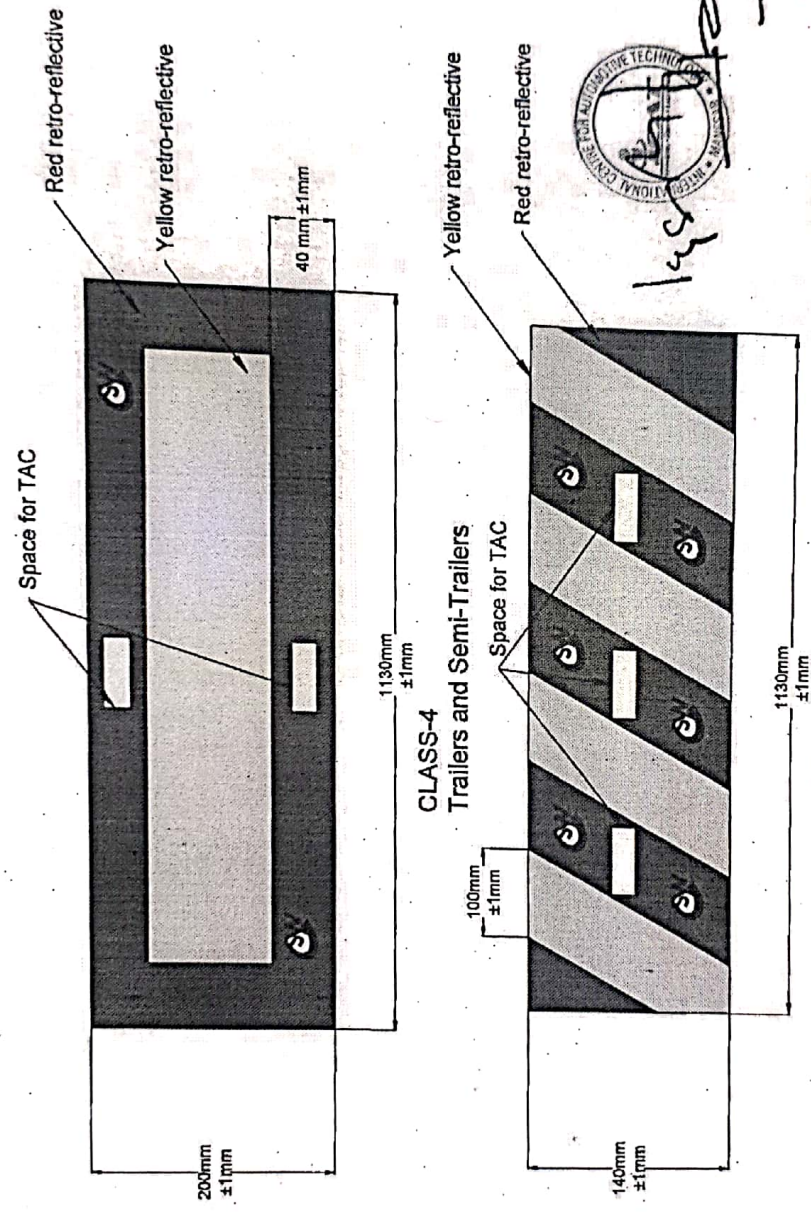
Non- Transferable

1	Applicant's Name	M/s. SYN AUTO SOLUTIONS PVT. LTD.			
2	Applicant's Address	Gali No. 11 Kadipur Industrial Area, Gurgaon Haryana-122001.			
3	Manufacturing / Assembly Plant Address	M/s. Wenzhou Xiangying Reflective Materials Science Technology Co., Ltd. No. 828 Lingang Road, Longgang Town, Cangnan County, Wenzhou City, Zhejiang Province, 325802, P.R. China.			
4	Description of the Test Component(s)	Rear Marking Plate			
4.1	Trade Name / Mark of the Manufacturer	SYN			
4.2	Type No. / Part No.	SYN - C3 and SYN - C4			
4.3	E-Approval No. / E Marking				
4.4	Applicability to Vehicle Model & Manufacturer	Commercial vehicles - (Trucks, Tractors, Trailers and Semi Trailers)			
4.5	Source / Bulb Details				
4.6	Category / Class of Test Component (s)	Class C3 and C4			
5	Applicable Notified Standard	AIS-089 as amended upto Dec 2014			
6	Test Report No.	CTOLO6916 dated 13th - Nov - 2019			
6.1	List of supporting documents	"SYN-DREW-C3,C4" showing location for TAC			
7	PTIV Reference No.	CTOLO6915 dated 07.11.2019			
8	Details of Quality Management System (QMS)	Type of QMS	Certifying Agency	Certificate No.	Valid Up To
		ISO 9001: 2015	TQCSI	CN2704-QC	04-01-2022
9	Approval	√			
10	The CoP period for the component mentioned in Sr. No. 4 above shall begin from the date of production & 1st CoP shall be completed before 30th September 2021.				
ICAT Reference		CCTNSYNACHPHL70476 Dated: 03.07.2019		Please turn over for DISCLAIMER	
AUTHORISED SIGNATORY					
 MADHUSUDAN JOSHI DY. GENERAL MANAGER		 PAMELA TIKKU SENIOR GENERAL MANAGER		 DINESH TYAGI DIRECTOR	

Office Address : Centre-I : Plot No.-26, Sector-3, HSIIDC, IMT-Manesar, Gurugram-122050. Haryana (India)
 Centre-II : Plot No.-01, Sector-M-11, HSIIDC, IMT-Manesar, Gurugram-122051. Haryana (India)
 Phone : 0124-4586111, Fax : +91-124-2290005. E-mail: team@icat.in, Website : www.icat.in
 (An ISO 9001:2015, ISO 14001:2015 and OHSAS 18001:2007 certified, scope wise NABL accredited and BIS recognised Test House)

Director

REAR MARKING PLATE DETAILED DIMENSIONS



NOTE: ALL DIMENSIONS ARE IN mm

M/s. SYN AUTO SOLUTIONS PVT. LTD. GURGAON	
Drawing No.- SYN-DREW-C3,C4	
PART NO.- SYN-C3,C4	REAR MARKING PLATE-C3,C4

INTERNATIONAL CENTRE FOR AUTOMOTIVE TECHNOLOGY

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Non - Transferable

TEST REPORT

ULR No. TC536019110000387P
TEST REPORT No. C T O L O 6 9 1 6

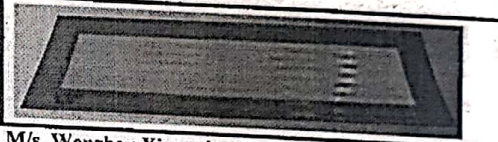
Date 13.11.2019

- 1.0 NAME AND ADDRESS OF THE APPLICANT : M/s. SYN AUTO SOLUTIONS PVT. LTD.
Gali No. 11 Kadipur Industrial Area,
Gurgaon Haryana-122001.
- 2.0 APPLICANT REFERENCE : IOCS Regn. No. : CCTNSYNAOHPL70476
Dated: 03-Jul-2019
- 3.0 DESCRIPTION OF TEST COMPONENTS :

Rear Marking Plates (Class 3 and Class 4): Rear marking Plate for Heavy Motor Vehicles

Class 3: Red Retro-reflective and Yellow Retro-reflective alternative strips

Class 4: Red Retro-reflective Border and Yellow Retro-reflective Centre.



Manufacturing Address

M/s. Wenzhou Xiangying Reflective Materials Science Technology Co., Ltd. No. 828 Lingang Road,
Longgang Town, Cangnan County, Wenzhou City,
Zhejiang Province, 325802, P.R. China.

Trade Name / Trade-Mark

SYN

Part No. / Type No.

SYN - C3 and SYN - C4

Applicability to Vehicle Model & Manufacturer

Commercial vehicles - (Trucks, Tractors, Trailers and Semi Trailers)

Drawing No. / Documents

"SYN-DREW-C3,C4" attached as Annexure II of this report.

4.0 DATE OF RECEIPT OF SAMPLES

09.09.2019

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 OF TEST

11.11.2019

Prepared By	Checked By		Approved By	
GIRISH SINGH Dy. Manager	MAHENDAR PAL Asst. General Manager		PAMELA TIKKU Sr. General Manager	

Page
01 of 08
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Drawing
[70476]

Office Address : Centre-I : Plot No.-26, Sector-3, HSIIDC, IMT-Manesar, Gurugram-122050. Haryana (India)

Centre-II : Plot No.-01, Sector-M-11, HSIIDC, IMT-Manesar, Gurugram-122050. Haryana (India)

Phone : 0124-4586111, Fax : +91-124-2290005. E-mail: team@icat.in, Website : www.icat.in

(An ISO 9001, ISO 14001 and ISO 45001 certified, scope wise NABL accredited and BIS recognised Test House)

For SYN Autosolutions Pvt. Ltd.

Director

ULR No. TC536019110000387P
TEST REPORT No. CTOL06916

Date

13.11.2019

8.0 ANY DEVIATION OR EXCLUSION FROM TEST METHOD

: No

9.0 LOCATION OF TEST

: ICAT, Centre - I

10.0 TEST OBJECTIVE AND PROCEDURE :

To carry out all the tests as per AIS-089 as amended upto Dec 2014.

11.0 TEST RESULTS:

Please refer Photometry, Colorimetry and Environment test Results in Annexure-I of this report.


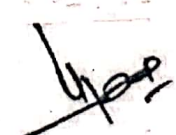
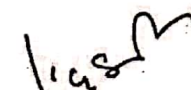
12.0 CONCLUSION :

Rear Marking Plates specified in Sr. No. 3.0 above, meets the requirements of all the tests when tested as per the procedure defined in Sr. No. 10.0 above.

DISCLAIMER

1. ICAT issues Test Reports/ Extension Reports/ Developmental Test Reports for vehicles /components/parts/ assemblies etc. based on the documents produced and/or prototype / vehicle(s) or sample(s) submitted by the applicant and testing thereof.
2. ICAT issues Test Reports/ Extension Reports/ Developmental Test Reports in compliance to Motor Vehicle Act/ Central Motor Vehicle Rules and their provisions as amended from time to time or any other statutory orders under which ICAT is authorized. Other Rules/Acts are outside the purview/scope of the Test Reports/ Extension Reports/ Developmental Test Reports.
3. Test(s) on prototype /vehicle(s) or sample(s) is/are carried out on the basis of standard procedures as notified under specific rules/ requested by the applicant. Results of such tests are property of bearer of Test Reports/ Extension Reports/ Developmental Test Reports. These results cannot be disclosed unless specifically ordered so by Government, Court, etc.
4. Unless otherwise supported by a separate Certificate, this Test Reports/ Extension Reports/ Developmental Test Reports shall not be considered in isolation as valid Type approval for any vehicle.
5. ICAT is not responsible for testing each vehicles/components/parts/assemblies etc. for which Test Reports/ Extension reports/ Developmental test reports is issued. Further, ICAT is not responsible for ensuring manufacturing quality of the vehicles/ components/ parts/ assemblies etc. for which the Test Reports/ Extension reports/ Developmental test reports is /are issued.
6. ICAT is in no way responsible for any misuse of copying of any design/type/system in connection with entire vehicle/ components/parts / assemblies covered under the Test Reports/ Extension reports/ Developmental test reports is /are issued.
7. Breach of any statutory provisions, of Indian laws or laws of other countries, will be sole responsibility of the bearer of Test Reports/ Extension Reports / Developmental reports is/are issued and ICAT shall not be liable for any claims or damages, whatsoever. The bearer shall alone be liable for the same and shall undertake to indemnify ICAT in this regard.
8. Further, ICAT has the right, but not under obligation to initiate cancellation / withdrawal of the Test Reports/ Extension Reports/ Developmental Test Reports is/are issued in case of any fraud, misrepresentation, when it surfaces and comes in the knowledge of ICAT.
9. No extract, abridgment or abstraction from this test report may be published or used to advertise the product without the written consent of the Director, ICAT, who reserves the absolute right to agree or reject all or any of the details of any items of publicity for which consent may be sought.

The appropriate local court at Gurgaon shall have the jurisdiction in respect of any dispute, claim or liability arising out of this report.

Prepared By		Checked By		Page 02 of 08 + Drawing [70476]	
					
GIRISH SINGH Dy. Manager		MAHENDAR PAL Asst. General Manager			

ULR No. TC536019110000387P
TEST REPORT No. C T 0 L O 6 9 1 6

Date 13.11.2019

Annexure-I

1.0 TEST RESULTS

1.1 Specification of Marking (Cl. No. 5.0) :



Cl. No	Specifications	Observation / Remarks
5.1.1	The trade name of the applicant and unique mark of type;	Trade Name: "SYN"
5.2	The markings shall be applied on either the retro reflective or the fluorescent area of the plate, or on the edge, and must be visible from the outside when the marking plate is fitted on the vehicle.	Satisfactory.
5.3	The markings shall be clearly legible and shall be indelible.	Satisfactory.

1.2 General Specifications (Cl. No. 7.0)

Cl. No	Specifications	Observation / Remarks
7.1	Retro-reflective/fluorescent or retro-reflective only marking plates shall be so constructed that they function satisfactorily and will continue to do so in normal use. In addition, they shall not have any defect in design or manufacture that is detrimental to their efficient operation or to their maintenance in good condition.	Satisfactory.
7.4	The outer surface of the retro reflective/ fluorescent or retro-reflective only marking plate(s) shall be easy to clean. The surface shall therefore not be rough and any protuberances it may exhibit shall not prevent easy cleaning.	Satisfactory.

1.3 Resistance to Heat (Annex 7):

Cl. No	Specifications	Observation / Remarks
2	The sample shall be examined after a recovery time of 4 hours under normal laboratory conditions. After this test, no cracking or appreciable distortion of the surfaces, particularly of the optical units, shall be evident.	After the test, no cracking or appreciable distortion of the of the surfaces, particularly of the optical units was observed. Satisfactory.

Prepared By		Checked By	
GIRISH SINGH		MAHENDAR PAL	
Dy. Manager		Asst. General Manager	

Page
03 of 08
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ULR No. TC536019110000387P
TEST REPORT No. CT 0 L O 6 9 1 6

Date 13.11.2019


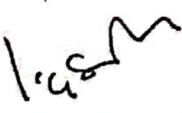
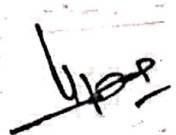
1.4 Specifications of Shape and Dimensions of Retro-Reflective Rear Marking Plates: (Annex-3)		
Cl. No	Specifications	Observation / Remarks
1	Shape: The plates shall be rectangular in shape for mounting at the rear of vehicles.	Satisfactory.
3	Dimensions: The minimum total summarized length of a set of rear marking plates consisting only of one, two or four marking plates with retro reflective and fluorescent materials shall be 1,130 mm, the maximum total length shall be 2,300 mm.	
3.1	The width of a rear marking plate shall be: For trucks and tractors: 140 ± 10 mm. For trailers and semi-trailers: $200 +30/-5$ mm	Class 3: Length of 2 plate: 1130 mm. Class 4: Length of 2 plate: 1131 mm.
3.3	The width of the red fluorescent border of the rear marking plates for trailers and semi-trailers shall be $40 \text{ mm} \pm 1 \text{ mm}$.	Class 3: Width: 140 mm. Class 4: Width: 200 mm.
3.4	The slope of the oblique stripes of the chevron band shall be $45^\circ \pm 5^\circ$. The width of the stripes shall be $100 \text{ mm} \pm 2.5 \text{ mm}$.	Class 3: Slope 45° Width of strip: 100 mm.
3.5	Rear marking plates supplied in sets shall form matching pairs.	Satisfactory.

1.5 Colorimetric Specification (Annex 4):

1.5.1 Color Test of Retro-reflecting device by CIE standard illuminate D_{65} (Annex 4, Cl. No. 2.1)

Colour Co-ordinates	Specified Values (Color - Yellow Retro-reflective)	Measured Values (Satisfactory)
		Sample 01
X Coordinate	0.427 to 0.545	0.5432
Y Coordinate	0.423 to 0.534	0.4488
Luminance factor	≥ 0.16	0.2447

Colour Co-ordinates	Specified Values (Color - Red Retro-reflective)	Measured Values (Satisfactory)
		Sample 01
X Coordinate	0.569 to 0.690	0.6707
Y Coordinate	0.310 to 0.345	0.3130
Luminance factor	≥ 0.03	0.0582

Prepared By		Checked By	Page 04 of 08 + Drawing [70476]
			
GIRISH SINGH Dy. Manager		MAHENDAR PAL Asst. General Manager	

ULR No. TC536019110000387P
TEST REPORT No. CTOL06916

Date 13.11.2019

1.5.2 Color Test of Retro-reflecting device by CIE standard illuminate A (Annex 4, Cl. No. 2.2)

Colour Co-ordinates	Specified Values (Color - Yellow Retro-reflective)	Measured Values (Satisfactory)
X Coordinate	0.505 to 0.610	Sample 01
Y Coordinate	0.385 to 0.480	0.5373
		0.4519
Colour Co-ordinates	Specified Values (Color - Red Retro-reflective)	Measured Values (Satisfactory)
X Coordinate	0.643 to 0.690	Sample 01
Y Coordinate	0.258 to 0.335	0.6674
		0.3165


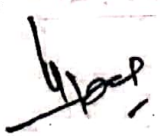
1.6 PHOTOMETRIC SPECIFICATIONS (Annex 5)

1.6.1 Photometry Testing : Yellow color (Retro Reflective Area)

Observation Angle (α)	Measuring Points		Minimum Requirement (cd/m ² .lx)	Sample No.	
	β_1	β_2		Sample 01	Sample 02
20'	0°	5°	300.0	516.00	582.24
20'	0°	30°	180.0	191.52	192.96
20'	0°	40°	75.0	95.52	95.04
20'	0°	60°	10.0	13.97	15.41

1.6.2 Photometry Testing : Red color (Retro Reflective Area)

Observation Angle (α)	Measuring Points		Minimum Requirement (cd/m ² .lx)	Sample No.	
	β_1	β_2		Sample 01	Sample 02
20'	0°	5°	10.0	118.00	106.40
20'	0°	30°	7.0	33.24	40.36
20'	0°	40°	4.0	16.36	22.20
20'	0°	60°	--	--	--

Prepared By		Checked By	
GIRISH SINGH		MAHENDAR PAL	
Dy. Manager		Asst. General Manager	

Date 13.11.2019

ULR No. TC536019110000387P
TEST REPORT No. CT0LO6916

1.7 Resistance to External Agents (Annex 6)
1.7.1 Resistance to weathering (Annex 6, Cl. 1.0)
1.7.1.1 Test Requirements:
1.7.1.1.1 Visual Appearance (Annex 6, Cl. 1.2)

No area of the exposed specimen shall show any evidence of cracking, scaling, pitting, blistering, delamination, distortion, chalking, staining or corrosion.
There shall be no shrinkage in excess of 0.5 percent in any linear direction and no evidence of adhesion failure such as edge lifting from the substrate.
Result: Satisfactory.


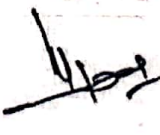
1.7.1.1.2 Colour fastness (Annex 6, Cl. 1.3)
The colours of the exposed specimens shall still meet the requirements.
By CIE standard illuminate D₆₅

Colour Co-ordinates	Specified Values (Color - Yellow Retro-reflective)	Measured Values		Remark
		Before	After	
X Coordinate	0.427 to 0.545	0.5448	0.5432	Satisfactory
Y Coordinate	0.423 to 0.534	0.4484	0.4479	
Luminance factor	≥ 0.16	0.2475	0.2431	

Colour Co-ordinates	Specified Values (Color - Red Retro-reflective)	Measured Values		Remark
		Before	After	
X Coordinate	0.569 to 0.690	0.6705	0.6710	Satisfactory
Y Coordinate	0.310 to 0.345	0.3131	0.3124	
Luminance factor	≥ 0.03	0.0572	0.0556	

Colour Co-ordinates	Specified Values (Color - Yellow Retro-reflective)	Measured Values		Remark
		Before	After	
X Coordinate	0.505 to 0.610	0.5385	0.5391	Satisfactory
Y Coordinate	0.385 to 0.480	0.4508	0.4512	

Colour Co-ordinates	Specified Values (Color - Red Retro-reflective)	Measured Values		Remark
		Before	After	
X Coordinate	0.643 to 0.690	0.6675	0.6672	Satisfactory
Y Coordinate	0.258 to 0.335	0.3155	0.3154	

Prepared By		Checked By	
GIRISH SINGH		MAHENDAR PAL	
Dy. Manager		Asst. General Manager	

20-

 ULR No. TC536019110000387P
 TEST REPORT No. CTOL06916

Date	13.11.2019
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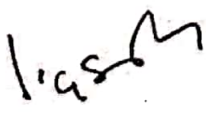
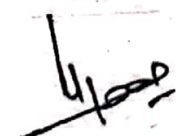
1.7.1.1.3 Photometric Specification (Annex 6, Cl. 1.4)

Measurement shall be made only at an observation angle of 20' and an entrance angle of 5°. The coefficient of retro reflection of the exposed specimen when dry shall be not less than 80 per cent of the value.

Observation Angle (α)	Entrance angle	Color	Minimum Requirement (cd/m ² .lx)	Before Test	After Test	Required value not less than 80% of previous value
20'	5°	Yellow	300.0	522.54	509.88	2.42%
		Red Reflective	10.0	126.50	116.12	8.21%

The specimen shall then be subjected to simulated rainfall and its coefficient of retro reflection under this condition shall be not less than 90% of the value obtained when measured in dry condition.

Annex. 6	TESTS	TEST REQUIREMENTS	OBSERVATIONS / RESULTS
CL No. 2.0	Resistance to corrosion	Immediately after completion of the test, the sample shall not show signs of excessive corrosion liable to impair the efficiency of the device The coefficient of 'Retro reflection R' of the retro reflective areas, when measured after a recovery period of 48 hours at an entrance angle of 5° and an observation angle of 20', shall not be less than the value 300 cd./lx.m ² for Yellow Reflective and 10 cd./lx.m ² for Red Reflective. Before measuring, the surface shall be cleaned to remove salt deposits from the saline mist.	No sign of corrosion was observed. Satisfactory. Yellow Reflective: 487.51 cd./lx.m ² Red Reflective: 109.87 cd./lx.m ²
CL No. 3.0	Resistance To Fuel	A section of a sample unit not less than 300 mm long shall be immersed in a mixture of n-heptane and Toulol, 70% and 30% by volume for one minute. After removal, the surface shall be wiped dry with a soft cloth and shall not show any visible change which would reduce its effective performance.	After the test, there was no visible change observed on the surface. Satisfactory.
CL No. 4.0	Bonding strength	The coated materials, of whatever kind, shall not be removable without tools or without damaging the material. The laminated materials (adhesive films) shall need a force of at least 10 N per 25 mm width, at a speed of 300 mm per minute, to be removed from the substrate.	Satisfactory

Prepared By	Checked By
 GIRISH SINGH Dy. Manager	 MAHENDAR PAL Asst. General Manager


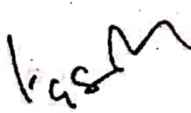
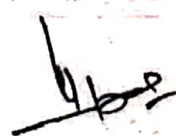


21-

ULR No. TC536019110000387P
TEST REPORT No. CT0LO6916

Annex. 6	TESTS	TEST REQUIREMENTS	Date	13.11.2019	OBSERVATIONS / RESULTS
Cl. No. 5.0	Resistance To Water	A section of a sample unit not less than 300 mm long shall be immersed in distilled water at a temperature of $23^{\circ} \pm 5^{\circ}$ C for a period of 18 hours; it shall then be left to dry for 24 hours under normal laboratory conditions. After completion of the test, the section shall be examined. No part inside 10 mm from the cut edge shall show evidence of deterioration, which would reduce the effectiveness of the plate.			No abnormalities were observed on the sample. Satisfactory.
Cl. No. 6.0	Resistance To Impact	When a 25 mm diameter solid steel ball is dropped from a height of 2 m onto the retro reflective and fluorescent surfaces of a supported plate, at an ambient temperature of $23^{\circ} \pm 2^{\circ}$ C, the material shall show no cracking or separation from the substrate at a distance of more than 5 mm from the impacted area.			No evidence of cracking or separation was observed. Satisfactory
Cl. No. 7.0	Cleaning	A test example smeared with a mixture of detergent lubricating oil and graphite shall be easily cleaned without damage to the retro reflective or fluorescent surfaces when wiped with a mild aliphatic solvent such as n-heptane, followed by washing with a neutral detergent.			No evidence of damage was observed. Satisfactory.

Annex. 8	TESTS	TEST REQUIREMENTS	OBSERVATIONS / RESULTS
Annex. 8	Rigidity of the Plates	The rear marking plate shall be placed on two supports in such a way that the supports are parallel to the shorter edge of the plate and the distance from either support to the adjacent edge of the plate shall not exceed $L/10$, where L is the greater overall dimension of the plate. The plate shall then be loaded with bags of shot or of dry sand to a uniformly distributed pressure of 1.5 kN/m^2 . The deflection of the plate shall be measured at a point midway between the supports. the maximum deflection of the plate under the test load shall not exceed one twentieth of the distance between the supports in paragraph 1 and the residual deflection after removal of the load shall not exceed one fifth of the measured deflection under load.	The maximum deflection of the plate is not exceeding one twentieth of the measured deflection under load. Satisfactory.

Prepared By			Checked By	
				
GIRISH SINGH Dy. Manager			MAHENDAR PAL Asst. General Manager	

INTERNATIONAL CENTRE FOR AUTOMOTIVE TECHNOLOGY

[A Division of NATRIP Implementation Society (NATIS), Govt. of India]

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TYPE APPROVAL CERTIFICATE

(For compliance to AIS - 037)


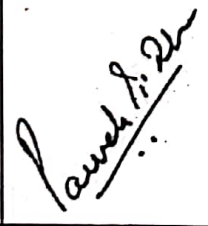

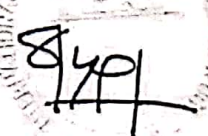

Reference No. :

C K 6 1 2 9

Date 06.03.2019

1.0	Applicant's Name and Address	M/s. SYN AUTO SOLUTIONS PVT. LTD. Gali No. 11 Kadipur Industrial Area, Gurgaon Haryana-122001.								
2.0	IOCS Reference	CCTNSYNANMPHO63955 dated 15-Nov-2018								
3.0	Manufacturing / Assembly Plant Address	M/s. Wenzhou Xiangying Reflective Materials Science Technology Co., Ltd. No. 828 Lingang Road, Longgang Town, Cangnan County, Wenzhou City, Zhejiang Province, 325802, P.R. China.								
4.0	Description of the Test Component(s)	Retro Reflecting Tape : Red, Yellow & White.								
4.1	Trade Name / Mark of the Manufacturer	SYN								
4.2	Type No. / Part No.	SYN-01 (RED), SYN-02 (YELLOW) & SYN-03 (WHITE)								
4.3	Applicability to Vehicle Model & Manufacturer	Commercial vehicles & Trailers								
4.4	Category / Class of Test Component (s)	Class C								
5.0	Source / Bulb Details	--								
6.0	Applicable Notified Standard	AIS: 090 (Rev. 1) as published on December 2005								
7.0	Test Report No.	CTOLO6128 dated 06.03.2019								
7.1	List of supporting documents	Drawing No. "SYN-DRW-01", "SYN-DRW-02" & "SYN- DRW-03" attached showing location of TAC marking.								
8.0	Pre-test inspection report no.	CTOLO6183								
9.0	Type of Quality Management System (QMS)	<table border="1"> <tr> <th>Type of QMS</th> <th>Certifying agency</th> <th>Registration No.</th> <th>Valid Up to</th> </tr> <tr> <td>ISO 9001: 2015</td> <td>TQCSI</td> <td>CN2704-QC</td> <td>4-Jan-22</td> </tr> </table>	Type of QMS	Certifying agency	Registration No.	Valid Up to	ISO 9001: 2015	TQCSI	CN2704-QC	4-Jan-22
Type of QMS	Certifying agency	Registration No.	Valid Up to							
ISO 9001: 2015	TQCSI	CN2704-QC	4-Jan-22							
10.0	Approval	<input checked="" type="checkbox"/> Granted/ <input type="checkbox"/> Not Granted/ <input type="checkbox"/> Extended								
11.0	The CoP period for the component mentioned in Sr. No. 4.0 above shall begin from the date of Import & 1st CoP shall be completed before 30 th September 2020.									

Authorized Signatories

				 Page 1 of 2 + Drawing [63955]
MADHUSDAN JOSHI	PAMELA TIKKU		DINESH TYAGI	
Dy. General Manager	Sr. General Manager		Director	

For Office Address : Centre-I : Plot No.-26, Sector-3, HSIIDC, IMT-Manesar, Gurugram-122050. Haryana (India)
Centre-II : Plot No.-01, Sector-M-11, HSIIDC, IMT-Manesar, Gurugram-122050. Haryana (India)
Phone : 0124-4586111, Fax : +91-124-2290005. E-mail: team@icat.in, Website : www.icat.in
(An ISO 9001, ISO 14001 and OHSAS 18001 certified, scope wise NABL accredited and BIS recognised Test House)

Director

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Reference No. :	C	K	6	1	2	9
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Date	06.03.2019
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 2. ICAT issues TAC in compliance to Motor Vehicle Act/ Central Motor Vehicle Rules and their provisions as amended from time to time or any other statutory orders under which ICAT is authorized. Other Rules/Acts are outside the purview/scope of the TAC.
 3. Test(s) on prototype is/are carried out on the basis of standard procedures as notified under specific rules. Results of such tests are property of bearer of TAC. These results cannot be disclosed unless specifically ordered by Government, Court, etc.
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- The appropriate local court at Gurgaon shall have the jurisdiction in respect of any dispute, claim or liability arising out of this certificate/report.

Authorized Signatories

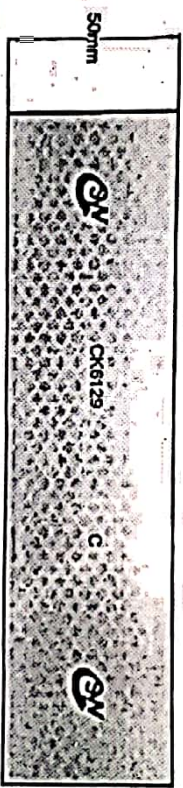
 MADHUSUDAN JOSHI Dy. General Manager		 PAMELA TIKKU Sr. General Manager	Page 2 of 2 + Drawing [63955]

42-

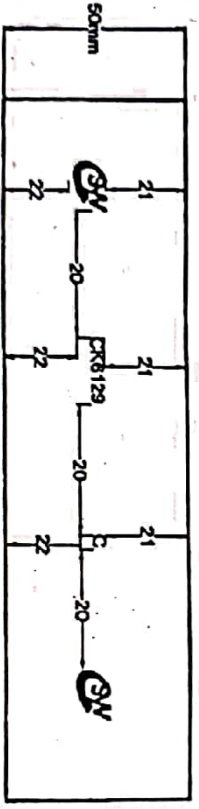
TAC No. CK6129 dated 06.03.2019

VEHICLE CONSPICUITY TAPES

WHITE CONSPICUITY



NOTE: ALL DIMENSIONS ARE IN MM

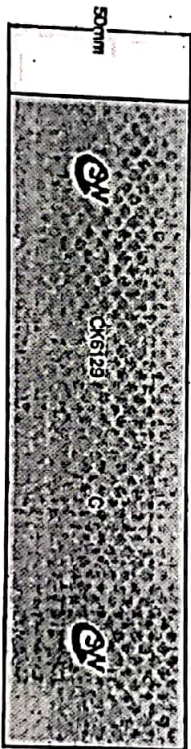


MEASUREMENT DRAWING

M/S. SYN AUTO SOLUTIONS PVT. LTD.
GURGAON
Drawing No. SYN-DRAW-03
Part No. SYN-03

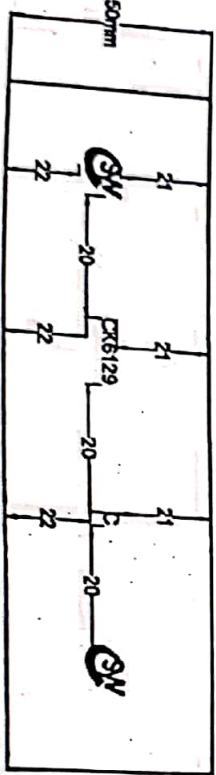
VEHICLE CONSPICUITY TAPES

YELLOW CONSPICUITY



NOTE: ALL DIMENSIONS ARE IN MM

MEASUREMENT DRAWING



M/s. SYN AUTO SOLUTIONS PVT. LTD.
GURGAON
Drawing No. SYN-DRW-402
Part No. SYN-402

INTERNATIONAL CENTRE FOR AUTOMOTIVE TECHNOLOGY

[A Division of NATRIP Implementation Society (NATIS), Govt. of India]

27-

Innovation • Service • Excellence

TEST REPORT

Non - Transferable

ULR No. TC536019110000064P
TEST REPORT No. CTOL06128

Date: 06.03.2019

- 1.0 NAME AND ADDRESS OF THE APPLICANT
- 2.0 APPLICANT REFERENCE
- 3.0 DESCRIPTION OF TEST COMPONENTS :
Reflective Tape - Red, White & Yellow Color.
Manufacturing Address

M/s. SYN AUTO SOLUTIONS PVT. LTD.
Gali No. 11 Kadipur Industrial Area,
Gurgaon Haryana-122001.
IOCS Regn. No. : CCTNSYNANMPHO63955
Dated: 15-Nov-2018

Trade Name / Trade Mark

Part No. / Type No.

Applicability to Vehicle Model & Manufacturer
Drawing No.

M/s. Wenzhou Xiangying Reflective Materials Science
Technology Co., Ltd. No. 828 Lingang Road,
Longgang Town, Cangnan County, Wenzhou City,
Zhejiang Province, 325802, P.R. China.
SYN
SYN-01 (RED), SYN-02 (YELLOW) & SYN-03
(WHITE)
Commercial vehicles & Trailers
"SYN-DRW-01", "SYN-DRW-02" & "SYN-DRW-03"
attached as Annexure II of this report.

4.0 DATE OF RECEIPT OF SAMPLES

5.0 CONDITION OF SAMPLES

6.0 FUNCTIONAL VERIFICATION

7.0 DATE OF PERFORMANCE OF TEST

8.0 TEST OBJECTIVE AND PROCEDURE :

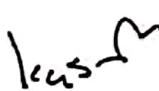


To carry out all the tests as per AIS: 090 as published on December 2005 (for Reflective Tape)

9.0 TEST RESULTS:

Please refer Photometry, Colorimetry and Environment test Results for Reflective Tape in Annexure-I of this report.

10.0 CONCLUSION :

Reflective Tape specified in Sr. No. 3.0 above, meets the requirements of all the tests when tested as per the procedure defined in Sr. No. 8.0 above.

Prepared By	Checked By	Approved By
		
GIRISH SINGH Asst. Manager	MAHENDAR PAL Asst. General Manager	PAMELA TIKKU Sr. General Manager

Office Address : Centre-I : Plot No.-26, Sector-3, HSIIDC, IMT-Manesar, Gurugram-122050. Haryana (India)
Centre-II : Plot No.-11, Sector-M-11, HSIIDC, IMT-Manesar, Gurugram-122050. Haryana (India)
Phone : 0124-4586111, Fax : +91-124-2290005. E-mail: team@icat.in, Website : www.icat.in
(An ISO 9001, ISO 14001 and OHSAS 18001 certified, scope wise NABL accredited and BIS recognised Test House)

Director

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28-


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TEST REPORT No. CTOL06128

Date 06.03.2019

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The appropriate local court at Gurgaon shall have the jurisdiction in respect of any dispute, claim or liability arising out of this report.

<p>Prepared By</p> <p><i>lcusm</i></p>		<p>Checked By</p> <p><i>[Signature]</i></p>	<p>Page 02 of 07 + Drawing [63955]</p>
<p>GIRISH SINGH</p>		<p>MAHENDAR PAL</p>	
<p>Asst. Manager</p>		<p>Asst. General Manager</p>	

29-

ULR No. TC536019110000064P
TEST REPORT No. CTOL06128

TEST RESULTS

Annexure-I

Date

06.03.2019


Cl. No	General Specifications	Observation / Remarks
7.1	Retro-reflective marking materials shall be that way constructed that they function satisfactorily and will continue to do so in normal use. In addition, they shall not have any defect in design or manufacture that is detrimental to their efficient operation or to their maintenance in good condition.	Satisfactory.
7.2	Retro-reflective marking materials or parts thereof shall not be capable of being easily dismantled.	Satisfactory.
7.3	The means of attachment of the marking materials shall be durable and stable.	Satisfactory.
7.4	The outer surface of the retro-reflective marking materials shall be easy to be cleaned. The surface shall therefore not be rough and any protuberances they may exhibit shall not prevent easy cleaning.	Satisfactory.

1.2 Shape and Dimensions:

Annex 05	TEST REQUIREMENTS	OBSERVATIONS / RESULTS
Cl. No. 1.2.1	The width of a side and/or rear marking material shall be 50 mm $\pm 10/0$ mm.	Satisfactory.
Cl. No. 1.2.2	The minimum length of an element of a retro-reflective marking material shall be such that at least one approval mark is visible.	Satisfactory.

1.3 Resistance to Heat:

Annex 08	TEST REQUIREMENTS	OBSERVATIONS / RESULTS
Cl. No. 04	After this test, no cracking or appreciable distortion of the retro-reflecting device and, in particular, of its optical component shall be visible.	After the test, no cracking or appreciable distortion of the retro-reflecting device was observed visually on any parts of the device. Satisfactory.

<p>Prepared By</p> <p><i>Girish Singh</i></p> <p>GIRISH SINGH Asst. Manager</p>		<p>Checked By</p> <p><i>Mahendar Pal</i></p> <p>MAHENDAR PAL Asst. General Manager</p>	<p>Page 03 of 07 + Drawing [63955]</p>
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30-

ULR No. TC536019110000064P
TEST REPORT No. CT O L O 6 1 2 8

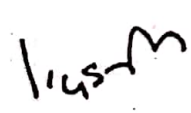

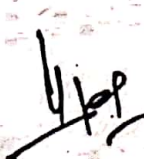
Date 06.03.2019

1.4 PHOTOMETRIC TEST: REFLECTIVE TAPE - Class C
1.4.1 Photometry Testing : Red Reflective Tape

PHOTOMETRY TESTING : Red Reflective Tape								
Observation Angle (α)	Measuring Points		Minimum Requirement (cd/m ² .lx)	Sample No.				
	β_1	β_2		01	02	03	04	05
				0° Orientation				
20°	0°	5°	120	146.40	150.00	137.60	145.20	144.80
				144.8				
20°	0°	20°	60	97.20	97.60	91.20	95.20	96.00
				95.4				
20°	0°	30°	30	76.36	77.32	71.52	74.72	75.32
				75.0				
20°	0°	40°	10	44.32	44.88	41.36	42.88	44.32
				43.6				
90° Orientation								
20°	0°	5°	120	132.40	133.20	122.80	129.60	128.40
				129.3				
20°	0°	20°	60	86.80	87.20	82.80	88.00	83.60
				85.7				
20°	0°	30°	30	67.40	67.72	64.24	68.28	64.92
				66.5				
20°	0°	40°	Innovation	34.76	35.68	34.60	35.32	35.32
				35.1				

1.4.1.1 Colorimetry Test :

Colour Co-ordinates	Specified limits (Colour - Red)	Measured Values (Satisfactory)				
		Sample No.				
		01	02	03	04	05
X Coordinate	0.643 to 0.735	0.6625	0.6603	0.6605	0.6609	0.6600
Y Coordinate	0.258 to 0.335	0.3201	0.3230	0.3211	0.3219	0.3226

Prepared By  GIRISH SINGH Asst. Manager		Checked By  MAHENDAR PAL Asst. General Manager	Page 04 of 07 + Drawing [63955]
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ULR No. TC536019110000064P
TEST REPORT No. CT0LO6128


Date 06.03.2019

1.4.2 Photometry Testing : White Reflective Tape

Spectrometry Testing : White Reflective Tape								
Observation Angle (α)	Measuring Points		Minimum Requirement ($\text{cd/m}^2 \cdot \text{lx}$)	Sample No.				
	β_1	β_2		01	02	03	04	05
20'	0°	5°	450	0° Orientation				
				556.40	550.80	586.40	576.80	554.00
				564.9				
20'	0°	30°	200	292.40	287.20	302.80	296.40	286.40
				293.0				
				175.8				
20'	0°	40°	90	176.00	178.00	173.20	180.80	171.20
				175.8				
				23.4				
20'	0°	60°	16	22.88	23.88	19.68	26.04	24.32
				23.4				
				90° Orientation				
20'	0°	5°	450	504.40	501.60	507.20	517.20	535.60
				513.2				
				275.0				
20'	0°	30°	200	262.00	275.60	276.00	282.00	279.20
				275.0				
				147.4				
20'	0°	40°	90	136.00	154.40	152.00	157.20	137.60
				147.4				
				20.9				
20'	0°	60°	16	18.80	22.20	21.28	22.80	19.64
				20.9				

1.4.2.1 Colorimetry Test :

Colour Co-ordinates	Specified limits (Colour - White)	Measured Values (Satisfactory)				
		Sample No.				
		01	02	03	04	05
X Coordinate	0.373 to 0.548	0.4608	0.4594	0.4598	0.4611	0.4617
Y Coordinate	0.359 to 0.513	0.418	0.4187	0.4184	0.4184	0.4194

<p>Prepared By</p> <p><i>husm</i></p> <p>GIRISH SINGH Asst. Manager</p>		<p>Checked By</p> <p><i>[Signature]</i></p> <p>MAHENDAR PAL Asst. General Manager</p>
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32-

ULR No. TC536019110000064P
TEST REPORT No. C T O L O 6 1 2 8

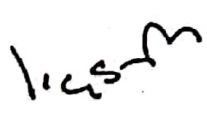

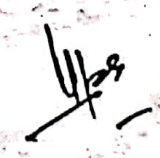
Date 06.03.2019

1.4.3 Photometry Testing : Yellow Reflective Tape

Observation Angle (α)								
Measuring Points		Minimum Requirement (cd/m ² .lx)	Sample No.					
β1	β2		01	02	03	04	05	
20'	0°	5°	300	0° Orientation				
				536.00	553.60	586.40	570.80	536.00
				556.6				
20'	0°	30°	130	281.60	279.20	302.80	297.20	282.40
				288.6				
				160.00	153.60	173.20	167.20	158.40
20'	0°	40°	75	162.5				
				17.64	18.00	19.68	19.72	17.12
				18.4				
20'	0°	60°	10	90° Orientation				
				471.20	464.40	497.20	488.80	486.00
				481.5				
20'	0°	30°	130	244.00	240.40	255.20	246.80	250.40
				247.4				
				130.00	126.40	138.00	130.40	136.40
20'	0°	40°	75	132.2				
				19.36	19.28	20.80	18.60	20.28
				19.7				


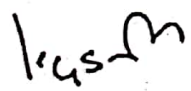
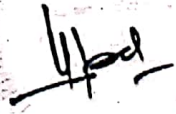
1.4.3.1 Colorimetry Test :

Colour Co-ordinates	Specified limits (Colour - Amber)	Measured Values (Satisfactory)				
		Sample No.				
		01	02	03	04	05
X Coordinate	0.505 to 0.610	0.5421	0.5413	0.5410	0.5416	0.5417
Y Coordinate	0.385 to 0.480	0.4462	0.4473	0.4481	0.4472	0.4477

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33

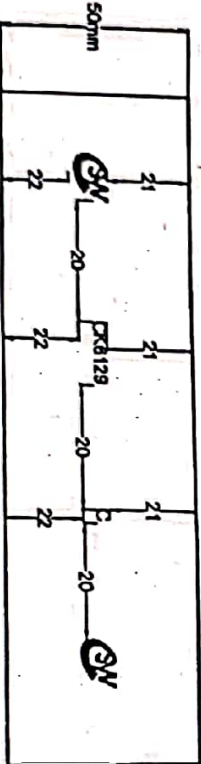
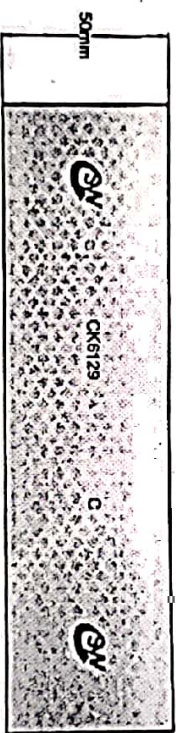
ULR No. TC536019110000064P TEST REPORT No. CTOL06128			Date	06.03.2019
Annex. 08	TESTS	TEST REQUIREMENTS	OBSERVATIONS / RESULTS	
Cl. No. 1.0	Resistance to weathering	For each test, two specimens of a sample unit are taken. One specimen shall be stored in a dark and dry container for subsequent use as 'reference unexposed specimen'. The second specimen shall be subjected to a source of illumination in accordance with ISO 105-B02; the retro reflective material shall be exposed until blue standard No. 7 has faded to No. 4 on the grey scale. After the test, the specimen shall be washed in a dilute neutral detergent solution, dried and examined for conformity with the requirements of Visual appearance (Cl. No. 1.2) and colour fastness (Cl. No. 1.3).	Visual Inspection: No area of the exposed specimen shows any evidence of cracking, scaling, splitting, blistering, delamination, distortion, chalking, staining or corrosion. Color Fastness: Satisfactory. Photometric Requirements: Satisfactory	
Cl. No. 2.0	Resistance to Corrosion	Immediately after completion of the test, the sample shall not show signs of excessive corrosion liable to impair the efficiency of the marking.	No sign of corrosion liable to impair the efficiency of the marking. Satisfactory.	
Cl. No. 3.0	Resistance To Fuel	A section of a sample unit not less than 300 mm long shall be immersed in a mixture of n-heptane and Toulon, 70% and 30% by volume for one minute. After removal, the surface shall be wiped dry with a soft cloth and shall not show any visible change which would reduce its effective performance.	After the test, there was no visible change observed on the surface. Satisfactory.	
Cl. No. 5.0	Resistance To Cleaning	A test sample smeared with a mixture of detergent lubricating oil and graphite shall be easily cleaned without damage to the retro-reflective material surfaces when wiped with a mild aliphatic solvent such as n-heptane, followed by washing with a neutral detergent.	No abnormalities were observed on the sample. Satisfactory.	
Cl. No. 7.0	Resistance to penetration of water	Sample unit of retro-reflective marking shall be immersed for 10 min in water at a temperature of $50 \pm 5^\circ\text{C}$, the highest point of the upper part of the retro-reflective surface being 20 mm below the surface of the water. This test shall be repeated after turning the sample unit through 180° , so that the retro-reflecting surface is at the bottom and the rear face is covered by about 20 mm of water. The sample units shall then be immersed in the same conditions in water at a temperature of $25 \pm 5^\circ\text{C}$.	No abnormalities were observed on the sample. Satisfactory.	

Prepared By		Checked By	Page 07 of 07 + Drawing [63955]
 GIRISH SINGH Asst. Manager		 MAHENDAR PAL Asst. General Manager	

U/LR No. TC536019110000064P TEST REPORT No. CT0LO6128 dated 06.03.2019

VEHICLE CONSPICUITY TAPES

WHITE CONSPICUITY



MEASUREMENT DRAWING

NOTE: ALL DIMENSIONS ARE IN MM

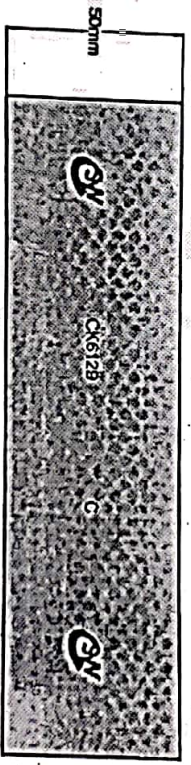
M/s. SYN AUTO SOLUTIONS PVT. LTD.
GURGAON
Drawing No. - SYN-DRAW-03
Part No. - SYN-03



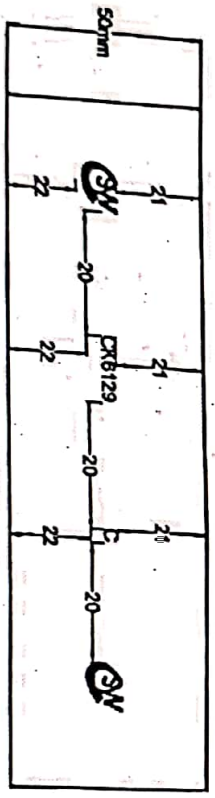
35
ULR No. TC536019110000064P TEST REPORT No. CT0LO6128 dated 06.03.2019

VEHICLE CONSPICUITY TAPES

YELLOW CONSPICUITY



MEASUREMENT DRAWING



NOTE: ALL DIMENSIONS ARE IN MM

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GURGAON

Drawing No. SYN-DRAW-02

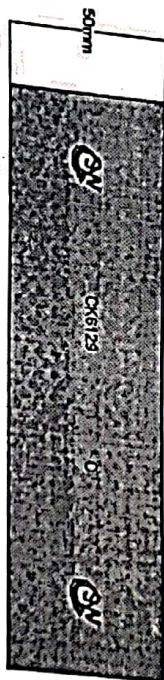
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ULR No. TC536019110000064P TEST REPORT No. CT0LO6128 dated 06.03.2019

VEHICLE CONSPICUITY TAPES

RED CONSPICUITY

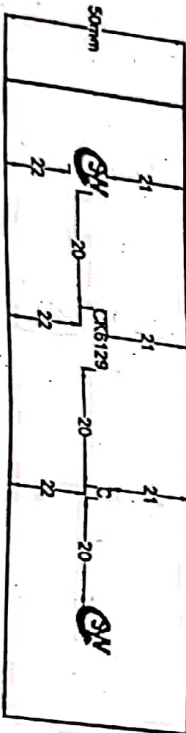


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NOTE: ALL DIMENSIONS ARE IN MM

MEASUREMENT DRAWING



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GURGAON
Drawing No. SYN/CRN/401
Part No. SYN-01