

TCR ENGINEERING SERVICES PVT.LTD.

TRUST - COMPETENCE - RELIABILITY

Chairman - Emeritus
VIRENDRA K. BAFNA
B. E. M. Eng. (Canada)
M.S.I.M. (U.S.A.) M. A. S. T. M

TCR / QF / 5101

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N.M. Joshi Marg, Mumbai - 400 011.
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Fax : 91-22-23080197
Website : www.tcreng.com

Laboratory :
VKB. House, EL - 182, M.I.D.C., TTC,
Electronic Zone, Mahape,
Navi Mumbai - 400 710.
Ph.: 022-67380900 / 9022137295
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Email : sales@tcreng.com



Certificate No. NABL-T-367,
NABL-T-368 & NABL-T-3304
NABL ISO 17025
ACCREDITED LABORATORY

TEST CERTIFICATE

Page 1 of 2
Date: 19-02-2018

T.C. No. : BP5581
Issued To. : M/s MIRACLE CABLES (INDIA) PVT. LTD.
Plot No.K-29/2, MIDC, Anand Nagar, Additional Ambernath,
Ambernath (E) 421501

Party Ref.	: Letter	Condition of Sample	: Test piece
Nature of Sample	: Copper Rod, Supplier: Vedanta	Sample Received on	: 11-01-2018
Specification	: --	Date of Completion	: 19-02-2018
Sample Drawn By	: Party	Enclosure	: NIL

Test : Tensile ,Wet Chemical

Size : 8mm Dia

TENSILE TEST **Test Method : ASTM E8 - 15**

Equipment : KIC - 2 / 0 - 100 KN

ASTM B 49 UNS
No. C11040 ETP

Gauge diameter (mm)	7.99	
Cross- sectional area (mm ²)	50.14	
Original gauge length (mm)	250.00	
Yield load (N)	4155.22	
Yield strength (N/mm ²)	82.87	
Ultimate tensile load (N)	10883.00	
U.T.S (N/mm ²)	217.05	
Final gauge length (mm)	355.90	
Elongation (%)	42.36	30 min.
Fracture	W.G.L	
Remark	Pass	

hnmnd
A. P. INAMDAR (MGR INT)

h
S S. SHANBHAG (T.M.)



1) The results relate only to the sample tested.
2) Test Certificate shall not be re - produced except in full without the written approval of laboratory.
3) While 'TCR' has made their best endeavors to provide accurate and reliable information, 'TCR' is not responsible for any financial / legal liability due to any act of omission or error made. T & C Overleaf
4) NABL Cert No. T - 0367 - Chemical Testing, T - 0368 - Mechanical Testing, T-3304 - Non Destructive Testing.

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Ambernath (E) 421501

Test : Tensile ,Wet Chemical

Size : 8mm Dia

WET CHEMICAL TEST

Test Method : TCR/MTC/05

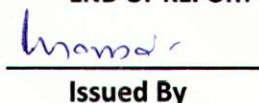
		Requirement
		ASTM B 49 UNS
		NO C11040 ETP
% Copper	99.93	99.90 min.
Silver (PPM)	6	25 max.
Lead (PPM)	1	5 max.
Iron (PPM)	8	10 max.
Tin (PPM)	1	5 max.
Bismuth (PPM)	1	1 max.
Nickel (PPM)	1	10 max.
Antimony (PPM)	1	4 max.
Sulphur (PPM)	10	15 max.
Arsenic (PPM)	1	5 max.
Tellurium (PPM)	1	2 max.
Selenium (PPM)	1	2 max.
Remark	Pass	



CHECKED BY

Checked By

*****END OF REPORT*****


Issued By


Authorised Signatory

vk/-

A. P. INAMDAR (MGR INT)

S S. SHANBHAG (T.M.)

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