TEST CERTIFICATE

BHARAT ALUMINIUM COMPANY LIMITED, KORBA
BALCO NAGAR KORBA, CHHATTISGARH, INDIA, PIN-495684
TELEPHONE:+ 91-7759-252227

BUYER:	**J M & CO GULALWADI Maharashtra**				
INVOICE NO:	**F22412400388**	**DATE OF INVOICE:**	**19.09.2024**	**QUANTITY:**	**2.126 MT**

Batch No	Material	Description	Length (mm)	Width (mm)	Thickness (mm)	Alloy	Temper	Net. Wt (MT)
7266202108	CCGP102	Unalloyed Cold Rolled PT Coil -GEQ As ma		1,220.00	0.71	19000	H2	0.301
7266202109	CCGP102	Unalloyed Cold Rolled PT Coil -GEQ As ma		1,220.00	0.71	19000	H2	0.299
7266202110	CCGP102	Unalloyed Cold Rolled PT Coil -GEQ As ma		1,220.00	0.71	19000	H2	0.298
7266202201	CCGP102	Unalloyed Cold Rolled PT Coil -GEQ As ma		1,220.00	0.71	19000	H2	0.300
7266202202	CCGP102	Unalloyed Cold Rolled PT Coil -GEQ As ma		1,220.00	0.71	19000	H2	0.301
7266202203	CCGP102	Unalloyed Cold Rolled PT Coil -GEQ As ma		1,220.00	0.71	19000	H2	0.331
7266202205	CCGP102	Unalloyed Cold Rolled PT Coil -GEQ As ma		1,220.00	0.71	19000	H2	0.296

Note:
In Batch/Coil No. XXXXXXYYYY - XXXXXX is Heat No., YYYY-Bundle No.

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TC No: BALC/1308/F22412400388 **TC Issue Date:19.09.2024**

CUSTOMER:	**SHEET ROLLING SHOP, BHARAT ALUMINIUM COMPANY LIMITED**
LOCATION:	**QUALITY ASSURANCE LABORATORY - METAL**
FACILITY:	**PERMANENT**

TEST PARAMETER	TEST METHOD FOLLOWED
1. CONDUCTIVITY	IS 5082-1998
2. TENSILE STRENGTH	IS 1608 Part 1: 2022
3. ELONGATION	IS 1608 Part 1: 2022
4. CHEMICAL ANALYSIS	ASTM E 1251-17a

The Chemical composition & Mechanical proeprties is confirming to specification.

1-IS 737:2008 for sheet & strip for general engineering purpose.
2-IS 736:1986 for plate for general engineering purpose.
3-IS 5082:1998 for plate & sheet for electrical application.
4-IS 5052:1993 for temper designation of Aluminium & its alloy

CHEMICAL COMPOSITION(In %), Environmental Condition: Temp.23+ /-5℃
PHYSICAL PROPERTIES & Environmental Condition: Temp. 23+ /-5℃ (Mechanical) & 27+ /-1℃ (Electrical).

Material Code	Batch No	Cu	Mg	Si	Fe	Mn	Ti	Zn	Cr	Other	Al * (by diff)	UTS N/MM2	%EL on 50mm GL	PS N/MM2	Bend Test	Elect. Cond %IACS
CCGP102	7266202108	0.0046	0.0036	0.24	0.17	0.0370	0.0158	0.0020	0.0000	0.03	99.496	130.02	4		OK	
CCGP102	7266202109	0.0046	0.0036	0.24	0.17	0.0370	0.0158	0.0020	0.0000	0.03	99.496	130.02	4		OK	

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Material Code	Batch No	Cu	Mg	Si	Fe	Mn	Ti	Zn	Cr	Other	Al * (by diff)	UTS N/MM2	%EL on 50mm GL	PS N/MM2	Bend Test	Elect. Cond %IACS
CCGP102	7266202110	0.0046	0.0036	0.24	0.17	0.0370	0.0158	0.0020	0.0000	0.03	99.496	130.02	4		OK	
CCGP102	7266202201	0.0046	0.0036	0.24	0.17	0.0370	0.0158	0.0020	0.0000	0.03	99.496	133.92	4		OK	
CCGP102	7266202202	0.0046	0.0036	0.24	0.17	0.0370	0.0158	0.0020	0.0000	0.03	99.496	133.92	4		OK	
CCGP102	7266202203	0.0046	0.0036	0.24	0.17	0.0370	0.0158	0.0020	0.0000	0.03	99.496	133.92	4		OK	
CCGP102	7266202205	0.0046	0.0036	0.24	0.17	0.0370	0.0158	0.0020	0.0000	0.03	99.496	133.92	4		OK	

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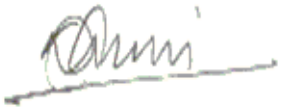
balco

Opinion & Interpretation: (If any)

Reviewed By- Chemical
Shift In Charge



Reviewed By- Mechanical & Electrical
Shift In Charge

Authorized Signatory
Technical Manager

Note:

1. MPa=1 MN/m2=1 N/mm2=0.102 kgf/mm2, 1PPM = 1/10,000%.
2. The results relate only to the samples tested in as received condition for applicable parameter.
3. Test Certificate shall not be reproduced except in full, without written approval of the laboratory.
4. This is a electronically signed certificate hence does not require signature.
5. In above mentioned batch number first six digit represents heat number and last four digit represent bundle number of the repective heat number.
6. Sampling done by customer and not by Quality Assurance laboratory.
7. No deviation from the method.
8. Customer reference is taken verbal.
9. Statement of conformity is not required by customer. So decision rule will not be employed.
10. Sample length for conductivity testing is 90x90 mm. Total sample length required for Mechanical & Electrical testing is 300x300 mm.
11. Sample diameter required is from 50 mm to 63 mm and height required is from 6 mm to 13 mm for Chemical analysis.
12. Apart from the permanent location facility, no other temporary or mobile facilities are available for lab to analyze the samples.

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