## Certificate for Welding Consumable CM-A96

Project: Supplementary List of Certified Welding Consumables

Client:	Kobe Steel, Ltd. Office: Ibaraki Plant	Yokohama
Clients Order Number:	- Date:	22 May 2023
	Order Status:	Completed
Inspection Dates First:	20 February 2023 Final:	15 May 2023

This certificate is issued to the above Client to certify that the undersigned Surveyor to this Society did at their request attend their Ibaraki Plant and Fujisawa Plant on and between the dates shown above for the purpose of examining and testing below noted welding consumable.

Trade Name:	CM-A96
Welding Process:	Manual Electrode
Welding Position:	DVuO
Joint Type:	BF
Specification:	CM-A96 [M – Manufacturer's specification]

A weld metal assembly was prepared using the welding consumable of lot number A023287/A0702X7, and specimens machined from the assembly according to the specification were tested using calibrated measuring and testing equipment in the presence of the undersigned with results satisfying the requirements of the specification as follows.

Mechanical Properties of Deposit Metal								
	Dia. [mm]	Re [N/mm <sup>2</sup> ]	Rm [N/mm²]	A [%]	CVN Impact [J]	Test Temp.	Stress Relief	
Spec.	2.6-6.0	≥ 460	≥ 550	≥ 19	-	-	690±14°Cx1hr	
Obtained	4.0/5.0	571/575	659/666	25/25	-	-	690±14°Cx1hr	

## Chemical Analysis of Deposit Metal [WT %]

	с	Si	Mn	Р	S	Ni	Cr	Мо	Cu
Spec.	0.05-0.12	0.60 max	0.90 max	0.030 max	0.030 max	-	1.00-1.50	0.40-0.65	-
Obtained	0.07/0.07	0.44/0.45	0.78/0.78	0.006/0.006	0.001/0.002	-	1.33/1.32	0.57/0.58	-

The works of the manufacturer was inspected and found in satisfactory order. The process of manufacture, including supervision, quality control and record keeping were of adequate standard and storage condition and facilities were found to be satisfactory as well.

(okohama Offi Lloyd's Register Group Limit M. Wakamori

Surveyor to Lloyd's Register Group Limited

A subsidiary of Lloyd's Register Group Limited

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.