GWELD
SEAL OF TRUST

GM 2553

A SUPER DUPLEX TIG WIRE WITH COPPER FOR WELDING. SUPER DUPLEX ALLOYS OF SIMILAR COMPOSITION.

IDENTIFICATION
GM 2553, ER 2553

CLASSIFICATION
AWS/SFA 5.9: ER 2553

DESCRIPTION
GM 2553 is designed to weld similar alloys usually supplied as castings. The addition of copper improves corrosion resistance in sulphuric acid media and also increase strength and wear resistance. The electrode gives matching strength and corrosion resistance in the solution treated condition but can also be used in the as-welded condition. Nitrogen and nickel contents are controlled to give a balanced duplex structure to minimise the risk of cracking, particularly in highly restrained welds.

CHEMICAL ANALYSIS (RANGE) %

C	Cr	Ni	Mn	Si	S	P	Mo	Cu	N
0.04 max	24.0 - 27.0	4.50 - 6.50	0.5 - 1.5	1.0 max	0.03 max	0.04 max	2.90 -3.90	1.5 - 2.5	0.10 - 0.25

MECHANICAL PROPERTIES (RANGE)

UTS (MPa)	EL (%) (L=4D)	CVN Impact Value	
		Temp	Joules
760 min	15 min	20°C	45 - 80

TYPICAL APPLICATIONS

Pumps and valves, corrosion / wear resisting parts and process equipment for use in offshore oil and gas industries, pulp, paper and textile industries, and chemical and petrochemical plant.

MATERIALS TO BE WELDED

- ASTM A351, A744 (cast) - CD4MCu, UNS J93370.
- ASTM A240 (wrought) - UNS S32550
- BS 3146 - ANC 21, BS 3100 332C13
- DIN 1.4515, 1.4517

MICROSTRUCTURE

In the solution treated condition the microstructure is duplex with about 30-60% ferrite dependent upon dilution.

SHIELDING GAS : (88% Argon + 10% He + 2% N)

PACKING PARAMETERS

Size (mm)	Weight / Spool (kg)
0.8	12.5
1	12.5
1.2	12.5
1.6	12.5