



ROYALMEX

WELDING CONSUMABLES





ROYALMEX

INTRODUCTION

ROYALMEX LLC is one of the leading suppliers of welding consumables from China. Its range of welding consumables includes welding electrodes, welding wire and automatic fluxes 3 categories. The products include mild steel electrodes, cellulose electrodes, high toughness electrodes, low alloy steel electrodes, hard facing electrodes, stainless steel electrodes, low temperature steel electrodes, Ni and Ni alloy electrodes, wire suitable for MAG, MIG, TIG, SAW and FCW welding.

Our associate manufacturer Atlantic whom we represent was registered in 1950. Our Welding consumables have excellent quality and enjoy a high reputation. Our welding consumable are widely used in power station boiler, pressure vessels, bridges, ships, vehicles, petroleum and chemical industry, sky scrapers, engineering industry and scaffolding manufacturing.

ATLANTIC welding consumables have been approved by the Lloyd's Register of Shipping (LR), American Bureau of Shipping (ABS), Bureau Veritas (BV), and Det Norske VERITAS (DNV).

Our manufacturer has approval for the ISO 9001 Quality Management System

Some of the fast moving electrodes and wires are being stocked in Dubai to meet customers' urgent requirement. Royalmex LLC is a tried and tested quality supplier of welding consumables.



We are always here to serve you.



A late-model SPECTROLAB spectrometer made by SPECTRO Analytical Instruments GmbH & Co. KG, Germany.



The US200MC Carbon & Sulfur Analyzer made by LECO Corporation, USA.



The TC500C Nitrogen & Oxygen Determinator made by LECO Corporation, USA.



A High efficiency UP320 extrusion production line for welding rods made by Maschinenfabrik Berner GmbH & Co KG, Germany.



Drum (pa) packing machines for MAG / MIG Wires, 250kg or 350kg per drum



Production lines for submerged arc welding (SAW) wire.



A corner of the automatic packing line for MAG / MIG Wires.



The MAG / MIG wire precision wound machines imported from SAMP STEEL, Italy.



AWS A5.1	E6013	EN	E420RR12
BS	E4332R(11)	JIS	D4313
CSA	E4313	GB	E4313
DIN	4332R3		

CHE40 is the general purpose mild steel welding electrode with titanium oxide type coating. It is able to provide excellent welding performance and satisfactory weld can be obtained in all position welding. It is widely used in ordinary strength mild steel structures especially suitable for intermittent welding to sheet steel and small workpieces as well as cosmetic welding with smooth and shiny appearance.

Chemical Composition Deposited Metal (%)

	C	Mn	Si	S	P
Standard	≤0.12	0.25-0.60	≤0.40	≤0.035	≤0.040
Typical	0.076	0.35	0.22	0.022	0.026

Mechanical Properties of Deposited Metal

	Yield Point σ _s (MPa)	Tensile Strength σ _b (MPa)	Elongation δ ₅ (%)	Impact Value (J)	
				20°C	0°C
Standard	≥305	400-560	≥22	—	≥47
Typical	410	500	27	110	75

Sizes, Pieces & Recommended Current (AC or DC)

Size (mm)	2.5×300	2.5×350	3.2×350	4.0×400	4.0×450	5.0×400	5.0×450
Pieces (5kg)	≈303	≈258	≈157	≈90	≈80	≈59	≈52
Current (A)	F,H	60-90	60-90	80-130	150-190	180-250	180-250
	V,OH	50-80	50-80	80-110	130-170	—	—

Approvals: CCS 2 LR 2N ABS 2 BV 2 GL 2 DNV 2 BKI 2 CWB E4313



AWS A5.1	E7018-1/E7018	EN	E42 5 B 32 H5
BS	EE5154B11026(H)	JIS	D5016
CSA	E44918-1H8	GB	E5018-1/E5018
DIN	E5154B (R)10		

CHE58-1 is an outstanding quality all position welding electrode covered with extra low hydrogen potassium type coating for welding high tensile steels and low alloy steels. Its nominal welding efficiency is about 110% due to iron powder is contained. The weld metal shows an excellent low temperature toughness and high crack-resistance. It is widely used in important projects of ships, boilers, high pressure vessels, bridges, skyscrapers, offshore drilling platforms, nuclear power stations etc. The groove of base metal should be cleared away impurities and the electrode must be baked at a temperature to 400°C then be held 1-2 hours before welding, 2.5mm one should be done by 350°C then be held 1 hour.

Chemical Composition Deposited Metal (%)

	C	Mn*	Si	S	P	Cr*	Ni*	Mo*	V*	Cu
Standard	≤0.12	≤1.60	≤0.75	≤0.035	≤0.040	≤0.20	≤0.30	≤0.30	≤0.08	—
Typical	0.071	1.42	0.53	0.009	0.014	0.047	0.022	0.010	0.014	0.024

The total amount of elements with *one should be ≤ 1.75%

Mechanical Properties of Deposited Metal

	Yield Point σ _s (MPa)	Tensile Strength σ _b (MPa)	Elongation δ ₅ (%)	Impact Value (J)		
				-20°C	-29°C	-46°C
Standard	≥375	490-660	≥22	≥47	≥27	≥27
Typical	440	560	30	160	140	120

The content of diffusion hydrogen of deposited metal <5ml/100g(ISO 3960) and a typical one is 2.6ml/100g

Sizes, Pieces & Recommended Current (AC ≥ 70V or DC +)

Size (mm)	2.5×300	2.5×350	3.2×350	3.2×450	4.0×400	4.0×450	5.0×400	5.0×450
Pieces (5kg)	≈290	≈248	≈145	≈114	≈84	≈75	≈51	≈45
Current (A)	F,H	70-100	70-100	100-140	100-140	140-170	190-240	190-240
	V,OH	60-70	60-70	80-110	80-110	130-150	—	—

Approvals: CCS 3YHS LR 3.3Y,H15, ABS 3YHS BV 3YHHH GL 3YH10 DNV 3YHS CWB E4918-1H8



AWS A5.18	ER70S-6		
BS A18	EN G3Si1		
CSA ER49S-6	JIS YGW12		
DIN SG2	GB ER50-6		

CHW-50C8 is a coppered solid wire for MAG/MIG welding high strength low alloy steel. Excellent mechanical properties of deposited metal can be obtained due to strictly control the S, P and a few Ti is added into the wire. It is suitable for welding 500MPa-550MPa grade steel structures such as ships, engineering & construction machineries, equipments for petrol chemical industry, pressure vessels, Lifts, bridges, skyscrapers etc. Especially for high speed backing welding of huge pipe lines for gas & oil transmission which fabricated by X60, X65 or 18Nb.

Chemical Composition of Deposited Metal (Typical, %)

	C	Mn	Si	S	P	Cu	Others
Standard	0.06-0.15	1.40-1.85	0.80-1.15	≤0.035	≤0.025	≤0.50	≤0.50
Typical	0.084	1.51	0.86	0.013	0.014	0.22	≤0.40

Mechanical Properties of Deposited Metal (Typical)

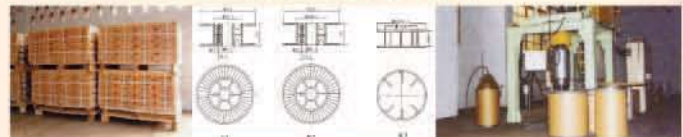
	Yield Point σ _s (MPa)	Tensile Strength σ _b (MPa)	Elongation δ 5 (%)	Impact Value (J)		Shield Gas
				-20°C	-29°C	
Standard	≥375	490-660	≥22	≥47	≥27	CO ₂
Typical	425	535	31	102	89	

Recommended Current Range (DC +)

Diameter(mm)	0.6	0.8	0.9	1.0	1.2	1.6
Current Range (A)	50-100	40-140	50-200	50-220	80-350	120-550

Approvals: CCS 3YSM LR 3SM,3YSM ABS 3SA, 3YSA GL 3YS NK KSW53G(C), KAW53MG(C) CWB ER49S-6

DIMENSIONS OF PACKING FOR WELDING RODS (MM)



For Carbon Steel Welding Electrodes

Length of Electrodes	5kgs Paper Box LxWxH	20kgs Carton LxWxH	1,000kgs Pallet LxWxH
300	308x82x62	330x184x140	890x750x890
350	358x79x54	380x178x125	925x770x800
400	408x75x50	430x170x115	890x880x750
450	458x72x47	480x165x110	1,000x830x720

For Stainless Steel & Cast Iron Welding Electrodes

Length of Electrodes	2kgs Paper Box LxWxH	20kgs Carton LxWxH	800kgs Pallet LxWxH
300	320x66x42	350x240x160	980x980x800
350	370x66x32	400x190x160	99x820x800
400	420x66x30	450x180x160	930x930x800

kgs/Spool	Carton(L×W×H)	Pallet(L×W×H)	
20kgs/Spool	290×290×110	1,200kgs (60 spools)	1,170×880×690
15kgs/Spool	260×260×110	1,080kgs (72 spools)	1,060×770×800
15kgs/Spool	260×260×110	900kgs (60 spools)	1,060×770×690

Code of Spool	K1	K2	K3
Material	Plastic	Plastic	Metal Wire
kgs/Spool	20kgs	15kgs	20kgs

Kg/Drum	Diameter × High	Pallet (L×W×H)	
350kgs	670×770	700kgs (2 Drums)	1,350×700×950
250kgs	520×800	1,000kgs (4 Drums)	1,050×1,060×980
100kgs	520×420	400kgs (4 Drums)	1,060×1,060×600



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