

# AS B-248 H4R



## Basic Coated Electrode for Mild Steels (Vacuum Pack)

### Classification

EN ISO 2560-A : E 42 4 B 42 H5  
AWS A5.1 : E7018 H4R

### General Description

AS B-248 H4R has a basic coated and moisture resistant coating. Vacuum pack enables electrode coating to keep its moisture content on production levels unless the package is not damaged or opened.

Due to its weld metal's high resistance to cracking AS B-248 H4R can be used for particularly to weld rigidly restrained mass structures where high welding stresses are unavoidable. The slag is easy to remove and it gives excellent quality, smooth weld beads. It is also suitable for welding in vertical upwards position at a high welding speed. It has 125% metal recovery.

### Chemical Composition (w%), Typical, All Weld Metal

C	Si	Mn
0.07	0.50	0.90

### Mechanical Properties, Typical, All Weld Metal

Yield Strength	: 470 N/mm <sup>2</sup>	
Tensile Strength	: 550 N/mm <sup>2</sup>	
Elongation (L=5d)	: 30 %	
Impact (ISO-V)	: 127 J (-40°C)	Re-drying Temperature : 350-400°C / 3 hrs (Should be applied if the vacuum pack damaged or opened)

### Approvals

ABS	BV	DNV	GL	LRS
4YH5, 4Y400H5	4Y40H5	4Y40H5	4Y40H5	4Y40mH5

### Welding Parameters / Packing and Diameter Informations / Welding Positions

Current Type and Polarity : DC (+)

Diameter [ mm ]	Length [ mm ]	Current [ A ]	Electrode Weight [ g/100 pcs ]	Box Weight [ kg ] Quantity [ pcs/box ]
2.50	350	80 - 110	2439	2.0 / 82
3.25	350	110 - 145	3846	2.0 / 52
4.00	450	130 - 190	8519	2.3 / 27
5.00	450	190 - 245	13333	2.4 / 18



1G/PA

2F/PB

2G/PC

4G/PE

3G/PF

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### Applications and Materials to be Welded

AS B-248 H4R is suitable for steel constructions and machines operating under dynamic forces. Ship building, boiler and pressure vessel manufacturing and pipe connections are among its application areas. It is recommended for the welding of high carbon, high strength low alloyed steels having high (P) and (S) content; high strength ship's plate of A-, D- and E- quality and vessel plates of 17 Mn 4 and 19 Mn 5 type. AS B-248 H4R can join steel parts to steel casts and can be used in welding of thick parts. It is suitable for the root pass and welding in difficult positions. It gives excellent weld beads with high impact strength values at subzero temperatures. It is also very suitable for welding of GALVANIZED plates.

	DIN	EN
<b>General Structural Steels</b>	St 33, St 34, St 37, St 44, St 44-2, St 44-3, St 52 St 37-4, St 44-4, St 52-4 St 50-2, St 60-2 C 55, Ck 55	S185, S235, S275, S355 P235TR2 - P355T2 E295, E335 C55
<b>Fine Grained Steels</b>	StE 255 - StE 420 WStE 255 - WStE 420 TStE 255 - TStE 420	S255N - S420N P255NH - P420NH S255NL - S420NL / P275NL1 - P355NL1
<b>Pipe Materials</b>	StE 210-7 - StE 360-7 StE 290-7 TM - StE 360-7 TM X42, X46, X52, X60 (API 5LX)	L210 - L360NB L290MB - L360MB -
<b>Boiler and Pressure Vessel Steels</b>	17 Mn 4, 19 Mn 6 HI, HII HIII	P295GH, P355GH P235GH, P265GH, P285NH
<b>Elevated Temperature Steels</b>	St 35-8, St 45-8	P235G1TH - P255G1TH
<b>Ship Plates</b>	A, D, E AH32 - EH36	- -
<b>Cast Steels</b>	GS-38, GS-45, GS-52, GS-60 GS-62	GE200, GE240, GE260, GE300 -