Hyrod 7028

Classification

AWS A5.1-91 : E7028 H 4R
EN 499-94 : E 42 2 B 53 H5

General description

Basic rutile type coating for ease of use
140% recovery and easy slag release
Fillet welds and horizontal V- and X-welds
Low hydrogen deposit
Excellent for tack welds, very easy restriking
Smaller diameters can be used in Vertical Up position

Welding positions

ISO/ASME PA/1G PB/2F PE/4G

Current type

AC/DC electr. +/-

Chemical composition (w%), typical, all weld metal

C	Mn	Si
0.07	0.95	0.4

Mechanical properties, all weld metal

Condition		Yield strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)	Impact ISO-V(J) -18°C	Impact ISO-V(J) -20°C
As welded						
Required:	AWS	min. 399	min. 482	min. 22	min. 27	
	EN	min. 420	500-640	min. 20		min. 47
Typical values		540	580	27		75

Packaging, available sizes and identification

Diameter (mm)	3.2	3.2	4.0	5.0
Length (mm)	350	450	450	450
Unit: box				
Pieces / unit (nominal)	180	102	72	35
Net weight/unit (kg)	4.6	5.7	5.9	5.2
Unit: SRP				
Pieces / unit (nominal)	30	47	25	17
Net weight/unit (kg)	1.3	2.6	2.0	1.6

Identification Imprint: Hyrod 7028/7028 Tip colour: none

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Materials to be welded

General structural steel	EN 10025	S185, S235, S275, S355
Ship plates		Grade A, B, C, D, A(H)32 to D (H) 36.
Cast steel	EN 10213-2	GP240R
Pipe material	EN 10208-1	L210, L240, L290, L360
	EN 10208-2	L240, L290, L360, L415, L445
	API 5LX	X42, X46, X52, X60
	EN 10216-1/	P235T1, P235T2, P275T1
	EN 10217-1	P275T2, P355N
Boiler & pressure vessel steel	EN 10028-2	P235GH, P265GH, P295GH, P355GH
Fine grained steel	EN 10113-2	S275, S275, S355, S420
	EN 10113-3	S275, S355, S420

Calculation data

Sizes Diam. x length	Current range	Current type	Arc time - per electrode	Energy at max. current -	Dep.rate	Weight/ 1000 pcs.	Electrodes/ kg weldmetal	kg Electrodes/ kg weldmetal
(mm)	(A)		(s)*	E(kJ)	H(kg/h)	(kg)	B	1/N
3.2 x 350	130 - 160	AC	58	216	1.5	43	41	1.82
4.0 x 450	170 - 240	AC	72	409	2.5	86	20	1.67
5.0 x 450	230 - 300	AC	67	699	4.3	128	12	1.67

* stub end = 35mm

Welding parameters, optimum fill passes

Welding position Diameter(mm)	1G Current (A)	2F	2G	3G
3.2	140	130	130	110
4.0	210	200	190	150
5.0	290	280	280	

Remarks

Application advice

Electrodes after removal from cardboard boxes redry 2-4h 350 ± 25°C