

Phoenix 6013

Covered electrode

Classifications	EN 499	AWS A 5.1
	E 42 0 RC 11	E6013

Characteristics and field of use
Rutile cellulose covered electrode. General purpose; useable in all positions; excellent gap-bridging and arc-striking ability; for tack-welding and bad fit-ups; excellent vertical down characteristics.

Materials
S235JRG2 - S355J2, GS-38, GS-45; P265 boiler steels P235GH, P265GH, P295GH; shipbuilding steels corresp. to app.-grade 2; fine grained structural steels up to P355N; weldable reinforcing steel bars

Typical analysis in %	C	Si	Mn
	0.09	0.35	0.50

Mechanical properties of the weld metal according to EN 1597-1 (min. values at RT)	Heat-treatment	Yield strength	Tensile strength	Elongation	Impact values
		0.2 % N/mm ²	N/mm ²	(L ₀ =5d ₀) %	in J CVN
	AW	420	510	22	50

Welding position  **Polarity = - / ~**

Approvals
ABS (Grade 2)
LR (Grade 2/2Y)
DNV (Grade 2)

Packaging, weights and amperages	Dimensions (mm)	pcs./pack	kg/pack	Amperage A
	2.5 x 350	279	5.0	70-110
	3.2 x 350	173	5.0	110-160
	4.0 x 350	113	5.0	140-200
	5.0 x 450	80	6.9	170-280

Phoenix 7018

Covered electrode

Classifications	EN 499	AWS A 5.1
	E 42 5 B 32 H5	E7018-1

Characteristics and field of use
Basic covered electrode with very good welding characteristics including out of position work; weld metal recovery about 120 %; crack-free weld metal when welding high-carbon steels. Suitable for use in tank construction, boilermaking, apparatus engineering, vehicle manufacture and shipbuilding. Redry for 2 h at 250-350 °C (482-662 °F).

Materials
S235JRG2 - S355J2, E295, E355, C 35; boiler steels P235GH, P265GH, P295GH, P355GH; fine grained structural steels up to S420N; shipbuilding steels A, B, D, E; offshore steels; pipe steels P265, P295; L290NB - L415NB, L290MB - L415MB; X 42 - X 60; cast steel GS-38, GS-45, GS-52;

Typical analysis in %	C	Si	Mn
	0.07	0.35	1.20

Mechanical properties of the weld metal according to EN 1597-1 (min. values at RT)	Heat-treatment	Yield strength	Tensile strength	Elongation	Impact values
		0.2 % N/mm ²	N/mm ²	(L ₀ =5d ₀) %	in J CVN -50 °C
	AW	420	510	25	120 47
	SR	400	500	26	130 47
	N	295	440	30	140

Welding position  **Polarity = + / ~**

Approvals
ABS (3H10/3Y) Controlas (0484)
DNV (3YH10) LR (3/3YH15) GL

Packaging, weights and amperages	Dimensions (mm)	pcs./pack	kg/pack	Amperage A
	2.5 x 350	200	4.2	65-100
	3.2 x 350	110	4.3	100-145
	3.2 x 450	110	5.5	100-145
	4.0 x 350	80	4.5	135-200
	4.0 x 450	80	5.8	135-200
	5.0 x 450	55	5.7	180-280
	6.0 x 450	40	7.0	240-375