

CARBO S- CrMo 91 CARBO T- CrMo 91

International standards

	S = solid wire	T = bare rod			
Material No.	1.4903				
EN 12070	SG CrMo91	WSG CrMo 91			
AWS A5.28-96	ER90S-B9				

Approvals --- --

Application notes

Wire electrode for welding high temperature, creep resistant martensitic

9-12 % chromium steels such as P91 and T91 and operation

temperatures up to 650°C.

The deposits have good toughness properties even under long term

stresses and high creep rupture strength.

Preheating and interpass temperature 250-350°C, after welding

annealing 750°C/> 2h.

Operating temperature

up to + 650° C

Base materials

Similar steels

1.4903 - X10CrMoVNb9-1

ASTM A199 Gr. T91; A335 Gr. P91; A213/213M Gr. T91

Mechanical properties of all-weld metal (typical values)

Tensile strength R _m N/mm ²			Impact energy ISO-V J + 20°C				
>620	>530	> 16	> 50				

Weld metal analysis (typical, wt %)

С	Si	Mn	Cr	Мо	Ni	V	Nb	N
0,12	0,3	0,5	9,0	0,9	0,7	0,2	0,055	0,04

		S = solid wire			T = bare rod					
Gas types EN 439		M2, M3, C1			I1					
Current			=	+				= -		
Diameter	mm	0,8	1,0	1,2	1,6	1,6	2,0	2,4	3,2	4,0
Welding amps	(A) min.	80	120	180	250				·	
.	(A) max.	130	190	250	320					
coils, weight		B300	15 kg.			10 kg.				

Statements on composition and application are just for the applier's information. Statements on mechanical properties always refer to the all-weld-metal according to valid standards. Carbo-Weld may change the characteristics of its products without notice. We recommend the applier to check our products for their special application autonomously.