

<b>Standards</b>	AWS A5.13	E CoCr-A
	DIN 8555	E 20-MF-40-CTZ

**Characteristics** The deposit of CARBO F-S 6 is a cobalt base alloy of austenitic-  
ledeburitic structure with embedded CrW carbides.  
The weld metal is highly resistant to corrosion, impact, abrasive  
wear as well as thermal shocks and heavy mechanical impact.  
Good aptitude for polishing and machining.

**Welding instructions** Working temperature should be kept between 400° and 600°C,  
depending on base material and type of construction. Slow cooling,  
if necessary oven cooling, is recommended for low alloyed and  
austenitic steels.  
Subsequent heat treatment ( stress relief at 700°C approx.) is not  
necessary, except on large structures.

**Working temperature** From room temperature up to + 600° C

**Typical applications** Due to its above-mentioned characteristics CARBO F-S 6 is  
particularly recommended for use on steam valves, hot shear  
blades, hot pressing dies, pumps for high-temperature liquids, etc.

<b>Mechanical properties of all-weld metal</b> ( typical values )	<b>At Rt.</b>	<b>+ 300°C</b>	<b>+ 600°C</b>	<b>Melting- range °C</b>	<b>Density</b>
	<b>HRc</b>	<b>HRc</b>	<b>HRc</b>		<b>g/cm<sup>3</sup></b>
	ca. 42	ca. 35	ca. 29	1280-1390	8,3

<b>Weld metal analysis</b> (typical, wt. %)	<b>C</b>	<b>Si</b>	<b>Mn</b>	<b>Cr</b>	<b>W</b>	<b>Fe</b>	<b>Co</b>	<b>Others</b>
	1	0,9	1	28	4,5	3	Base	< 3

**Gas types EN 439** **M13: 99% Argon with 1% Oxygen**

**Current** = +

<b>Current intensity</b>	<b>DIA (mm)</b>	<b>DIA (inch)</b>	<b>Volt</b>	<b>Amps</b>	<b>Delivering form</b>
	1,2	3/64	19 - 22	120 - 220	<b>G</b>
	1,6	1/16	20 - 26	160 - 260	<b>G</b>
	2,0	5/64	22 - 27	220 - 280	<b>G</b>
	2,4	3/32	24 - 28	260 - 340	<b>G</b>
	2,8	7/64	25 - 29	300 - 400	<b>S</b>

**Delivering form** **O = Flux cored wire self shielding**  
**G = Flux cored wire for shielded arc welding**  
**S = Flux cored wire for submerged arc welding**

**Coils, weight** B/BS 300 = 15 kg      B 450 = 30 kg      pay off pack = 150 / 300 kg

Rev. 000

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.