

**Standards** DIN 8555 W / SG 20--300-CKTZ

**Approvals** ---

**Characteristics** CARBO TS 21 is a bare rod for the TIG welding process. The deposit is a cobalt base alloy of high tenacity as well as extreme corrosion- and heat resistance. The weld metal is highly resistant to impact and is work-hardening up to 45 HRC. 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.

**Operating temperature** From room temperature up to + 300° C

**Typical applications** Due to its above-mentioned characteristics CARBO SK 21 is particularly recommended for use on all work pieces which are subject to corrosion, impact wear as well as high temperatures or thermal shocks.

<b>Hardness of all-weld metal</b> ( typical values )	<b>At Rt. HRC</b>	<b>+ 300°C HB</b>	<b>work hardened HRC</b>	<b>Melting- point</b>	<b>Density g/cm<sup>3</sup></b>
	ca. 30	ca. 280	ca. 280	1250°C	8,3

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

**Current** = -

**Welding positions** PA, PB, PC , PD, PE, PF

**Gas types EN 439** I 1: Argon

**Flux-cored wire equivalent** CARBO F- S 21

<b>Dia./Length</b>	<b>Pcs./packet</b>	<b>Pcs./carton</b>	<b>kg/1000</b>	<b>kg/packet</b>	<b>kg/carton</b>
2,5 x 350	333	1333	15,0	5,0	20,0
3,2 x 350	200	800	25,0	5,0	20,0
4,0 x 350	147	588	34,0	5,0	20,0
5,0 x 350	91	363	78,7	5,0	20,0

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.