

# CARBO 4519 HE

<b>International standards</b>	Material No.	1.4519
	EN 1600	E 20 25 5 Cu N L R 53
	AWS A 5.4	E385-17 /mod.

**Approvals** ---

**Typical applications and characteristics** CARBO 4519 HE is an electrode with an alloyed core wire and a recovery of 160% well suited for joint welding on the same or similar corrosion resistant CrNiMoCu steels along with low alloyed steels. Overlays with this electrode leave a pierce and tension resistant deposit that is also resistant to intergranular (IK) corrosion, specifically from acids and non-oxidating materials (i.e. sulfuric, phosphorous acids or ammonium acetate).

**Operating temperature** - 60° C up to + 400° C

<b>Base materials</b>	1.4339	GX32CrNi28-10	1.4536	GX 2 NiCrMoCuN 20-18
	1.4500	GX7NiCrMoCuNb25-20	1.4539	X 1 NiCrMoCu25-20-5
	1.4505	X4NiCrMoCuNb20-18-2	1.4585	GX7CrNiMoCuNb18-18
	1.4506	X5NiCrMoCuTi20-18	1.4586	X5NiCrMoCuNb22-18
	1.4531	GX2NiCrMoCuN20-18		

<b>Mechanical properties of all-weld metal</b> ( typical values )	<b>Tensile strength R<sub>m</sub></b> N/mm <sup>2</sup>	<b>Yield strength R<sub>p0,2</sub></b> N/mm <sup>2</sup>	<b>Elongation A<sub>5</sub></b> %	<b>Impact strength ISO – V J</b> at – 40° C
	580	380	40	80

<b>Weld metal analysis</b> (typical, wt %)	<b>C</b>	<b>Si</b>	<b>Mn</b>	<b>Cr</b>	<b>Ni</b>	<b>Mo</b>	<b>Cu</b>
	0,02	0,8	1	20	25	4,5	1,5

**Current** = + / ~ , 50 V

**Welding positions** PA, PB

**Rebaking** 1 h, 350° C + / - 10° C ( if necessary )

Dia./Length	Amperage (A)	Pcs./packet	Pcs./carton	kg/1000	kg/packet	kg/carton
2,0 x 300	40 - 55	238	952	16,8	4,0	16,0
2,5 x 300	60 - 80	131	525	30,5	4,0	16,0
3,2 x 350	80 – 110	97	388	51,6	5,0	20,0
4,0 x 350	115 - 140	64	256	78,2	5,0	20,0
5,0 x 450	130 - 180	38	153	157,0	6,0	24,0