



HEATING TECHNOLOGY

Manufacturers of furnaces in hardening and induction technology rely on **capilla**.

THE PROBLEM

Erosion, heat, pressure and fatigue slowly but surely reduce the product quality, increase maintenance costs, and lead to a declining efficiency.

More and more often, this results in longer lasting plant downtimes and lets operating costs rise to incalculable amounts.

THE SOLUTION

capilla-products reduce plant downtimes, increase product quality, and thus raise productivity noticeably.

All **capilla**-products were created with more than 50 years of experience in forging, the most demanding welding application.

TYPICAL APPLICATIONS

Furnace muffles, stove roles, burner pipes, conveyors and casting links, annealing hoods, furnace shuttles, fanwheels, furnace linings, walking beams, chimneys.

Demanding welders all over the world put their trust in the **capilla**-quality: in maintenance, repairs and production.

capilla always delivers the most suitable product.

capilla - The number 1 for all demanding metal-workers.

Below you can find a brief extract of the stick-electrode range manufactured by **capilla**, which are specifically used in the Heating Technology. A number of other products, as well as solutions for other welding processes can alternatively be provided by **capilla**.

	Product Description	Applications	Analysis [weight-%]
309 MO AWS A 5.4: E 309 Mo-26	Rutile-basic coated stick electrode for fusion welding of similar or lower alloyed CrNiMo – steels. Especially suitable for overlay weldings onto non-alloyed steels if an 18/8/2 CrNiMo alloy has to be realized in the first layer. Scale resistant up to 1050°C.	Fusion welding and cladding of material such as: 1.4401, 1.4404, 1.4406, 1.4410, 1.4437, 1.4571, 1.4580. Also suitable for dissimilar joints of high and low alloyed steels.	C max. 0,03 Cr 23,0-24,0 Ni 11,0-13,0 Mo 2,5-3,5 Fe Rest
310 AWS A 5.4: E 310-16	Rutile-basic coated electrode for welding of heat resistant austenitic steels. The weld metal is fully austenitic and scaling resistant up to 1200°C. Deposited material is not resistant to sulphurous gases.	Suitable for materials as: 1.4832, 1.4840, 1.4841, 1.4845, 1.4846, 1.4849, 1.4713, 1.4726, 1.4710, 1.4745, 1.4823.	C max. 0,1 Cr 23,0-26,0 Ni 19,0-21,0 Mn 2,5-3,0 Fe Rest
6000 B AWS A 5.11: ~E NiCrFe-3	Basic coated stick electrode for fusion welding and cladding of nickel alloys and cryogenic nickel steels. In case of dissimilar welding of nickel base materials to carbon steels even at high temperatures no carbon diffusion from the ferritic base material into the fully austenitic weld metal occurs. Good resistance to thermal shocks.	Especially suitable for dissimilar joints at service temperatures in the range of –196°C to + 650°C. Temperature limitations: Scaling resistant up to 1000 °C; in sulphurous atmosphere max. 500 °C; fully loaded welds max. 800 °C. Material Nos.: 1.4876, 2.4870, 2.4867, 2.4816, 1.5662, 1.4429, 1.4539, 1.4922 and joints of these materials with low alloyed steels.	C 0,03-0,06 Cr 18,0-21,0 Mn 4,0-6,0 Nb 2,0-2,8 Fe 3,0-5,0 Ni Rest

Experts trust **capilla**.



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