Solid wire, high alloyed

Brand Standard AWS Standard EN ISO	Chemical Composition (%) Typical Values	Mechanical Properties Typical Values	Ø x L (mm)	Approvals	Characteristics and Applications
THERMANIT X AWS A5.9: ER307(mod.) EN ISO 14343-A: G 18 8 Mn	C: 0.08 Si: 0.8 Mn: 7.0 Cr: 19.0 Ni: 9.0	Shielding Gas: M12, M13, M21 UTS: 600 MPa YS: 370 MPa El: 35% CVN Impact: +20°C: 100J	0.8 1.0 1.2 1.6	TÜV, DB, DNV-GL, VG 95132-1, CE	Stainless. Resistant to scaling up to 850°C (1562°F). No adequate resistance against sulphureous combustion gases at temperatures above 500°C (932°F). For joining and surfacing applications with heat resistant Cr-steels and heat resistant austenitic steels. Well suited for fabricating austenitic ferritic joints max. application temperature 300°C (572°F). For joining unalloyed/low-alloy or Cr-steels to austentic steels. Low heat input required in order to avoid brittle martensitic transition zones.
AVESTA 308L-Si/MVR-Si AWS A5.9: ER308LSi EN ISO 14343-A: G 19 9 L Si	C: 0.02 Si: 0.85 Mn: 1.8 Cr: 20.0 Ni: 10.5 FN: 9 (WRC-92)	Shielding Gas: Ar + 2-3% CO_2 UTS: 640 MPa YS: 470 MPa El: 34% CVN Impact: +20°C: 140J -196°C: 80J	0.8 1.0 1.2 1.6	CE, DB, DNV, TÜV	Avesta 308L-Si/MVR-Si is designed for welding austenitic stainless steel type 19 Cr 10 Ni or similar. The wire can also be used for welding titanium and niobium stabilized steels such as ASTM 321 and ASTM 347 in cases where the construction is used at temperatures not exceeding 400°C.
AVESTA 316L-Si/SKR-Si AWS A5.9: ER316LSi EN ISO 14343-A: G 19 12 3 L Si	C: 0.02 Si: 0.85 Mn: 1.7 Cr: 18.5 Ni: 12.0 Mo: 2.6 FN: 7 (WRC-92)	Shielding Gas: Ar + 2-3% CO_2 UTS: 600 MPa YS: 400 MPa El: 36% CVN Impact: +20°C: 110J -196°C: 50J	0.8 1.0 1.2 1.6	CE, DB, DNV, TÜV, GL	Avesta 316L-Si/SKR-Si is designed for welding austenitic stainless steel of type 17 Cr 12 Ni 2.5 Mo or similar. The filler metal is also suitable for welding titanium and niobium stabilized steels such as ASTM 316Ti in cases where the construction is used at temperatures not exceeding 400 °C. For higher temperatures, a niobium stabilized consumable such as Avesta 318-Si/SKNb-Si is required.
AVESTA 309L-Si AWS A5.9: ER309LSi EN ISO 14343-A: G 23 12 L Si	C: 0.02 Si: 0.8 Mn: 1.8 Cr: 23.5 Ni: 13.5 FN: 9 (WRC-92)	Shielding Gas: Ar + 2-3% CO_2 UTS: 600 MPa YS: 400 MPa El: 32% CVN Impact: +20°C: 110J	0.8 1.0 1.2	CE, DB, TÜV	Avesta 309L-Si is a high-alloy 23 Cr 13 Ni wire primarily intended for surfacing of low-alloy steels and dissimilar welding between mild steel and stainless steels, offering a ductile and crack resistant weldment. The chemical composition, when surfacing, is equivalent to that of ASTM 304 from the first run. One or two layers of 309L are usually combined with a final layer of 308L, 316L or 347.
AVESTA 2205 AWS A5.9: ER2209 EN ISO 14343-A: G 22 9 3 N L	C: ≤ 0.015 Si: 0.4 Mn: 1.7 Cr: 22.5 Ni: 8.8 Mo: 3.2 N: 0.15 PRE_N: ≥35	Shielding Gas: Ar + 20% He + 2% CO_2 UTS: 830 MPa (≥550) YS: 660 MPa (≥450) El: 28% (≥20) CVN Impact: +20°C: 85J -40°C: ≥32J	1.0 1.2	TÜV, DB, GL, DNV, CE	Avesta 2205 is primarily designed for welding the duplex grade Outokumpu 2205 and similar but it can also be used for SAF 2304 type of steels. Avesta 2205 provides a ferritic austenitic weldment that combines many of the good properties of both ferritic and austenitic stainless steels. The welding can be performed using short, spray or pulsed arc. Welding using pulsed arc provides good results in both horizontal and vertical up positions.