Your partner for welding of nickel flux cored wires

NICKEL FLUX CORED WIRES

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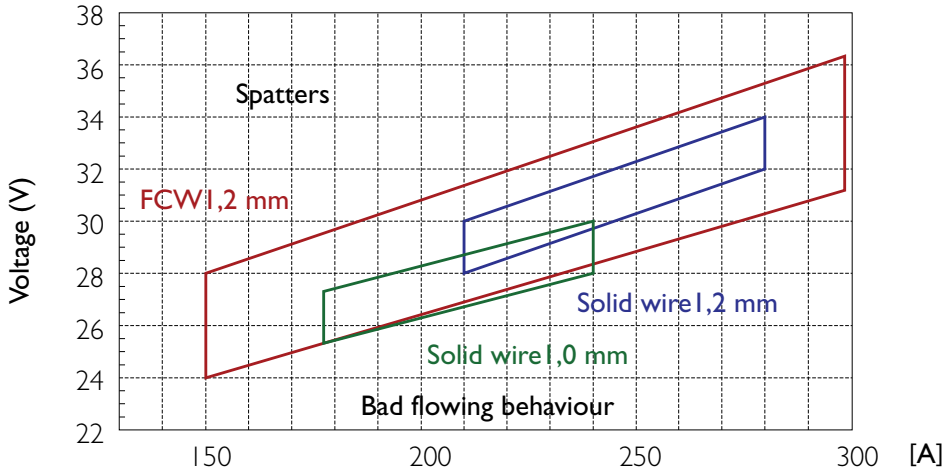
With the development of flux cored wire made from nickel alloys UTP has been able to optimally combine the good welding properties of stainless rutile electrodes with the high deposition efficiency of nickel MIG/MAG wires.

The UTP nickel flux cored wires stand out in terms of:

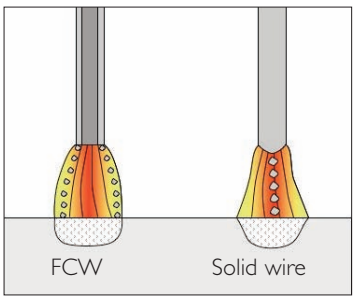
- **Maximum quality (low spatter, low fault risk, optimal fusion penetration geometry, very good welding behavior and excellent mechanical properties)**
- **Excellent weldability in any position (especially true of the PW variants)**
- **Problem-free feed property**
- **Self releasing slag**
- **Simple handling**
- **Rapidly solidifying slag provides good support during position welding**
- **well proven for welding thin sheet**
- **Cost reduction through excellent seam quality (only minimal rework necessary)**
- **Very good economics**

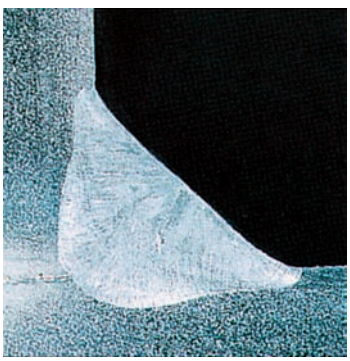
General advantages

UTP flux cored wires ensure a very high range of possible setting parameters:

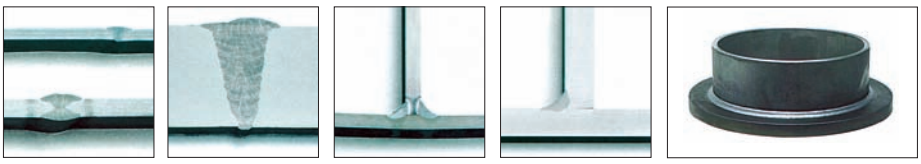


- The right welding behavior stays constant on a wide range of current and voltage adjustment.
- Non-intended changes in the position of the torch are tolerated thanks to the wide parameter window without harming the weld.
- Smooth welding with spray-arc, without spatters from approx. 150 A, 24 V, 6.5 m/min. (Solid wire Ø 1.2 mm from only approx. 210 A, 28 V, 7 m/min)





FCW Ø 1,2 mm



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UTP-Product Material No. EN AWS	Weld metal analysis	Mechanical properties of the pure weld deposit	Approvals	Application field	Base material No.
AF 068 HH 2.4648 EN ISO 14 172 : E Ni 6082 (NiCr20Mn3Nb) AWS A5.34 : E NiCr 3 T0-4	C 0.03 Si 0.4 Mn 3.0 Cr 20.0 Nb 2.4 Fe 1.4 Ni Rest	$Rp_{0.2}$ 400 MPa Rm 650 MPa A 35 % Kv 120 J	TÜV	CrNi flux cored wire with slag for joint and build-up welding of Ni alloys of the same and similar types and dissimilar joints with C and CrNi steels	2.4816 ○ NiCr15Fe 2.4817 ○ LC NiCr15Fe 1.4583 ○ X 10 CrNiMoNb 18 12 1.4876 ○ X 10 NiCrAlTi 32-21 1.4859 ○ G X 10 NiCrNb 32-20 1.0562 ○ StE 355
AF 068 HH Mn 2.4648 EN ISO 14 172 : E Ni 6082 (NiCr20Mn3Nb) AWS A5.34 : E NiCr 3 T0-4 mod.	C 0.03 Si 0.4 Mn 5.0 Cr 20.0 Nb 2.4 Fe 1.4 Ni Rest	$Rp_{0.2}$ 400 MPa Rm 640 MPa A5 40 % Kv 120 J	-	CrNi flux cored wire with slag for joint and build-up welding of Ni alloys of the same and similar types and dissimilar joints with C and CrNi steels, as well as cladding on unalloyed steels	2.4816 ○ NiCr15Fe 2.4817 ○ LC NiCr15Fe 1.4583 ○ X 10 CrNiMoNb 18 12 1.4876 ○ X 10 NiCrAlTi 32-21 1.4859 ○ G X 10 NiCrNb 32-20 1.0562 ○ StE 355
AF 7015 2.4807 EN ISO 14 172 : E Ni 6182 (NiCr15Fe6Mn) AWS A5.34 : E NiCrFe 3 T0-4	C < 0.03 Si 0.4 Mn 7.0 Cr 15.0 Nb 1.5 Fe 1.5 Ni Rest	$Rp_{0.2}$ 390 MPa Rm 610 MPa A 35 % Kv 100 J	-	Nickel-based flux cored wire with slag for joint and build-up welding of Ni-based materials of similar types and dissimilar joints with C and CrNi steels	2.4816 ○ NiCr15Fe 2.4817 ○ LC NiCr15Fe 1.4583 ○ X 10 CrNiMoNb 18 12 1.0562 ○ StE 355 alloy 600, alloy 600 Lc
AF 6222 Mo PW 2.4621 EN ISO 14 172 : E Ni 6625 (NiCr22Mo9Nb) S A5.34 : E NiCrMo 3T1-4	C 0.03 Si 0.4 Mn 0.4 Cr 21.5 Mo 9.0 Nb 3.5 Fe 0.5 Ni Rest	$Rp_{0.2}$ 490 MPa Rm 760 MPa A 35 % Kv + 20°C 70 J -196°C 60 J	TÜV	CrNiMo flux cored wire with slag for joint and build-up welding of Ni-based materials of the same type and dissimilar joints with C and CrNi steels, as well as cladding on C steels	2.4856 ○ NiCr22Mo9Nb 1.4539 ○ X NiCrMoCu 25 20 5 1.4583 ○ X NiCrNb 18 12 1.0562 ○ StE 355 1.5662 ○ X 8Ni9 alloy 625, alloy 904, alloy 553 Typ 1
AF 6122 Co ~ 2.4628 EN ISO 14 172 : E Ni 6617 (NiCr22Co12Mo) S A5.34 : E NiCrCoMo1T0-4	C 0.06 Si 0.4 Mn 0.8 Cr 23.0 Mo 9.0 Nb 0.5 Co 10.0 Fe 1.5 Ni Rest	$Rp_{0.2}$ 480 MPa Rm 720 MPa A 30 % Kv 60 J	-	NiCrCoMo flux cored wire with slag for joint and build-up welding of Ni alloys of the same type and heat resistent CrNi steels dissimilar joints with C and CrNi steels	2.4663 ○ NiCr23Co12Mo 1.4583 ○ X10CrNiNb 18 12 1.4876 ○ X10NiCrAlTi 32 20 1.4859 ○ GX10NiCrNb 32 20 alloy 617

Additional Information

Form of delivery Wire 1,2 mm, 1,6 mm on demand
Wire spools, approx. 15 kg/spool

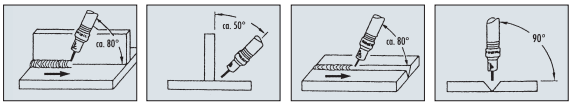
Weld position PA, PB, PC and PF only for PositionWelding

Performance The deposition rate in kg/h at 100% welding time is about: 3,1 kg/h at 150 A
5,8 kg/h at 240 A

Shielding gas M21 Argon +5 -25 % CO2

Welding instructions Weld UTP flux cored wires with direct current reverse polarity (dc+),
preferably slightly dragging (contact angle approx. 80°)
Weld data are similar to those for solid wires, however, higher wire feeding speed rates are necessary.

Torch manipulation The dragging torch position allows for excellent weld pool and slag control as well as an impeccable side wall fusion in spite of a high deposition efficiency.



Sales Program

Welding consumables:	Stick electrodes for welding nickel and nickel alloys Stick electrodes for hardfacing Special stick electrodes for welding different kinds of steel Stick electrodes for welding cast iron Stick electrodes for chamfering and cutting Stick electrodes for welding non-ferrous metals Stick electrodes for welding stainless, acid- and heat resistant steels Silver solders, brazing alloys, soft solders Fluxes Stick electrodes for welding low- and medium-alloyed steels MIG/MAG wires and TIG rods Flux-cored wires Submerged arc welding wires and fluxes
Flame and Plasma spraying powders:	Metal powders EXOBOND powders UNIBOND powders HABOND powders PTA powders (Plasma)

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If it can be welded – we know how.

UTP is a certificated company.
TÜV Certification according to DIN EN ISO 9001
DIN EN ISO 14001