

NiCrCo 617

CATEGORY	GMAW-GTAW Solid wires																																				
TYPE	Nickel based alloy with high heat resistance combined with excellent mechanical strength																																				
APPLICATIONS	NiCrCo 617 is a high temperature alloy which is used for welding of nickel-chromium-cobalt-molybdenum alloys (UNS Number N06617). This filler metal can also be used for overlay cladding where similar alloy is required such as gas turbines and ethylene equipment.																																				
PROPERTIES	Weld metal provides optimum strength and oxidation resistance above 1500° up to 2100°F, especially when welding on base metals of nickel-iron-chromium alloys.																																				
CLASSIFICATION	AWS	A 5.14: ER NiCrCoMo-1 (UNS N06617)																																			
	EN ISO	18274: S Ni 6617 (NiCr22Co12Mo9)																																			
	DIN: W.Nr.	2.4627																																			
	DIN	1736: SG-NiCr22Co12Mo																																			
SUITABLE FOR	Inconel alloys 600 and 601, Incoloy alloys 800 HT and 802 and cast alloys such as HK-40, HP and HP-45 Modified. UNS Number N06617, 2.4663, 1.4952, 1.4958, 1.4959, NiCr21Co12Mo, X6CrNiNbN 25 20, X5NiCrAlTi 31 20, X8NiCrAlTi 32 21, Alloy 617, N08810, N08811																																				
APPROVALS	CE approved																																				
WELDING POSITIONS:																																					
ALL WELD METAL DEPOSIT (WEIGHT %)	<table border="1"> <thead> <tr> <th>C</th> <th>Fe</th> <th>Si</th> <th>Cr</th> <th>Ni</th> <th>Co</th> <th>Mo</th> <th>Ti</th> </tr> </thead> <tbody> <tr> <td><0.15</td> <td><3.0</td> <td><1.0</td> <td>20-24</td> <td>Rem</td> <td>10-15</td> <td>8-10</td> <td><0.6</td> </tr> </tbody> </table>							C	Fe	Si	Cr	Ni	Co	Mo	Ti	<0.15	<3.0	<1.0	20-24	Rem	10-15	8-10	<0.6														
C	Fe	Si	Cr	Ni	Co	Mo	Ti																														
<0.15	<3.0	<1.0	20-24	Rem	10-15	8-10	<0.6																														
MECHANICAL PROPERTIES	<table border="1"> <thead> <tr> <th rowspan="2">Heat Treatment</th> <th rowspan="2">R_{p0,2} (N/mm²)</th> <th rowspan="2">R_m (N/mm²)</th> <th rowspan="2">A₅ (%)</th> <th colspan="3">Impact Energy (J) ISO-V</th> <th rowspan="2">Hardness HRC / HV</th> </tr> <tr> <th>20°C</th> <th>-40°C</th> <th>-60°C</th> </tr> </thead> <tbody> <tr> <td>AW</td> <td>>480</td> <td>>760</td> <td>>32</td> <td>>120</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>							Heat Treatment	R _{p0,2} (N/mm ²)	R _m (N/mm ²)	A ₅ (%)	Impact Energy (J) ISO-V			Hardness HRC / HV	20°C	-40°C	-60°C	AW	>480	>760	>32	>120														
Heat Treatment	R _{p0,2} (N/mm ²)	R _m (N/mm ²)	A ₅ (%)	Impact Energy (J) ISO-V			Hardness HRC / HV																														
				20°C	-40°C	-60°C																															
AW	>480	>760	>32	>120																																	
AW: as welded																																					
WELDING PARAMETERS / PACKING	<table border="1"> <thead> <tr> <th colspan="3">Welding Parameters</th> <th colspan="3">Packing</th> </tr> <tr> <th>D (mm)</th> <th>Voltage (V)</th> <th>Current (A) DC+</th> <th>spool type</th> <th>kg spool</th> <th>kg / pallet</th> </tr> </thead> <tbody> <tr> <td>0.8</td> <td>16-26</td> <td>80-180</td> <td>S-300</td> <td>15</td> <td>1080</td> </tr> <tr> <td>1.0</td> <td>16-29</td> <td>100-250</td> <td>S-300</td> <td>15</td> <td>1080</td> </tr> <tr> <td>1.2</td> <td>18-29</td> <td>125-290</td> <td>S-300</td> <td>15</td> <td>1080</td> </tr> </tbody> </table>							Welding Parameters			Packing			D (mm)	Voltage (V)	Current (A) DC+	spool type	kg spool	kg / pallet	0.8	16-26	80-180	S-300	15	1080	1.0	16-29	100-250	S-300	15	1080	1.2	18-29	125-290	S-300	15	1080
Welding Parameters			Packing																																		
D (mm)	Voltage (V)	Current (A) DC+	spool type	kg spool	kg / pallet																																
0.8	16-26	80-180	S-300	15	1080																																
1.0	16-29	100-250	S-300	15	1080																																
1.2	18-29	125-290	S-300	15	1080																																
REDRYING TEMPERATURE	not required																																				
GAS ACC. EN ISO 14175:	I1, I3 (Ar-He)																																				