

CA-101S×UC-316/316L

For welding of 18%Cr-12%Ni-2%Mo stainless steel.

UC-316 : AWS ER316

UC-316L : AWS ER316L

Applications

Welding of 18%Cr-12%Ni-2%Mo stainless steel. 18%Cr-12%Ni-2%Mo type hardsurfacing of mild steel or low allow steel.

Characteristics

CA-101S×UC-316/316L is bonded type flux which contains appropriate quantity of alloy elements in consideration of crack resistibility. Therefore, by using this flux property, sufficient ferrite content, good crack resistibility, good mechanical properties and good corrosion resistibility weld metal can be obtained.

Notes on usage

- (1) Refer to "General notes on usage for submerged arc welding."
- (2) CBS-1M is used for the single-pass-on-both-side welding and for first pass in multipass welding.

Typical chemical composition of weld metal (%)

Flux × Wire	C	Mn	Si	Ni	Cr	Mo	Remarks		
							Welding method	Base metal	PT (mm)
CA-101S×UC-316	0.06	1.12	0.87	11.47	18.81	2.07	Both side single-layer	SUS 316	15
CA-101S×UC-316L	0.03	1.16	0.84	11.76	18.74	2.06			

Typical mechanical properties of weld metal

Flux × Wire	TS N/mm ² (MPa)	EL %	IV (J)
			0°C
CA-101S×UC-316	584	38	72
CA-101S×UC-316L	559	43	69

Typical welding conditions

PT (mm)	Dia. (mT.)	Pass	Amp.	Volt.	Speed (cm/min)	Groove dimension					
							A (mm)	B (mm)	N (mm)	(^o)	(^o)
11	4.0	1	450	33	55		3	3	5	90	90
		2	500	33	60						
19	4.8	1	650	35	30		6	6	7	90	90
		2	800	35	35						