

# CS-200

For welding of heavy-duty structures and ship buildings, pressure vessels

AWS A5.1 E6019  
KS D 7004 E4301  
JIS Z3211 E4319

## Applications

Welding of ship buildings, bridges, rail way cars, pressure vessels and other general structures.

## Characteristics

CS-200 is ilmenite type covered electrode which is designed for better weldability in particular.

As its crack resistibility and X-ray soundness are excellent, structural steels with heavy sections up to about 25mm can be welded with CS-200. The penetration is deeper compared with high titania and lime titania type electrodes.

## Notes on usage

- (1) Pay attention not to exceed the range of proper currents. Welding with excessive current not only lowers X-ray soundness, but also causes increase of spatter, undercut and insufficient slag covering.
- (2) Dry the electrodes at 70~100°C for 30~60 minutes before use. Excessive moisture absorption lowers usability and may result in some porosities.
- (3) Excessive drying before use causes less penetration and overheating of the electrode.

## Typical chemical composition of weld metal (%)

C	Mn	Si	P	S
0.08	0.42	0.10	0.016	0.010

## Typical mechanical properties of weld metal

YP N/mm <sup>2</sup> (kgf/mm <sup>2</sup> )	TS N/mm <sup>2</sup> (kgf/mm <sup>2</sup> )	EL %	IV J (kgf-m)
			-20°C
400(41)	470(48)	32	90(9)

## Size & recommended current range (AC or DC ±)

Dia. (mm)	2.0	2.6	3.2	4.0	4.5	5.0	6.0	
	L (mm)	300	350	350	400,450	400	400	450
Amp.	F	35-55	50-85	80-130	120-180	145-200	170-250	230-300
	V&OH	30-50	40-70	60-110	100-150	115-175	130-200	-

• Approval : ABS, DNV, NK

• Tip Color : Green