

FOR HIGH TENSILE
STRENGTH STEEL

AWS F7A(P)6-EM12K
JIS S502-H
KS FS-BN1×YS-S3

EF-200K×KD-42

Typical applications

Welding of vessels, steel structures, and general fabrication.

Characteristics on Usage

- ① Bead appearance and slag removal are excellent under higher welding speed with low current
- ② Excellent resistance against porosity and impact properties.
- ③ Repeated use of fluxes causes the deterioration of original performance of flux, so flux should be used by mixing new one properly.
- ④ Redry the flux at 250~350°C for more than 60 minutes.

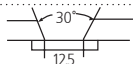
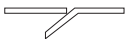
Typical chemical composition of all-weld-metal (%)

C	Si	Mn	P	S	Base metal	
					Class	Thick (mm)
0.09	0.45	1.30	0.014	0.012	SM 400	20
0.08	0.47	1.43	0.014	0.012	SM 490	25

Typical mechanical properties of all-weld-metal

Y · P N/mm ² {kgf/mm ² }	T · S N/mm ² {kgf/mm ² }	El (%)	Charpy V-notch J (kgf · m):		Base metal	
			-40°C	-50°C	Class	Thick (mm)
460 {47}	550 {56}	28	80 {8}	60 {6}	SM 400	20
490 {50}	580 {59}	28	90 {9}	70 {7}	SM 490	25

Typical welding conditons

Thick (mm)	Wire dia. (mm)	Groove dimension (mm)	Amp.	Volt.	Travel speed (cm/min)	Pass
25	4.0		600	30	40~50	1~14
3.2	2.4		350	28	150	1~2

Approved by

ABS, BV, DNV, GL, KR, LR, NK