

# K-71TM

For 490MPa high tensile steel

## Classifications

EN ISO 17632-A:2015	: T42 0 R C1 1 H5
	: T46 0 R M21 1 H10
EN ISO 17632-B:2015	: T49 2 T1-1C1(M21)A-U H5(H10)
JIS Z 3313-2009	: T49 2 T1-1MA-U H10
AWS A5.20-2005(R2015)	: E7 1T-1C/-1M
AWS A5.36-2016	: E7 1T1-C1/M21A2-CS1-H8
KS D 7104-2012	: YFW-A(C)502R

## Approvals – M21 (Ar 80% + CO<sub>2</sub> 20%)

ABS	: 3YSA H10
BV	: SA3YM
DNV	: III YMS
LR	: 3YS
Other	: TUV

## Description

- It is designed for welding of 490MPa high tensile steel with outstanding mechanical properties
- Typical applications include machineries, shipbuilding, offshore structures, bridges and general fabrications
- Wire is titania type of flux cored wire for all-position welding
- The shielding gas should be used is Ar+20% CO<sub>2</sub>, low spatter generation, smooth bead shape, high X-ray safety

## Welding positions



## Polarity & shielding gas

- DCEP (DC+)
- Mix: 80% Ar + 20% CO<sub>2</sub> (15 – 25 l/min)

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

Shielding Gas	C	Si	Mn	P	S
Mix	0.03	0.59	1.44	0.013	0.010

## Typical mechanical properties of all-weld metal

	Yield Strength	Tensile Strength	Elongation	Impact Value (J)		Remarks
	(MPa)	(MPa)	(%)	-20 °C	-30 °C	
AWS A5.20	Min. 390	490-670	Min. 22	≥ 27		
EN ISO 17632-B	Min. 390	490-670	Min. 18	≥ 47		
Example	550	610	30	65	50	Mix

## Notes on usage and welding condition

- Refer to KISWEL welding handbook page 219-221 for more information on usage
- For Mix gas, voltage should be lowered by 1-2 volts compared to when you weld with 100% CO<sub>2</sub>

## Package

Diameter (mm)	1.2, 1.4, 1.6
Spool (kg)	5, 12.5, 15, 20
Pailpack (kg)	100 - 300