

TNM-17

AWS A5.11 ENiCrMo-4
EN ISO 14172 E Ni 6276
JIS Z 3224 DNiCrMo-4

Characteristics and Applications:

TNM-17 is a nickel based low hydrogen type covered electrode (for DC) containing less C and Si for reducing carbide precipitation in grain boundary. The excellent heat resistance and corrosion resistance are suitable for chemical plant and FGD equipments. It is also suitable for HASTELLOY C-276 and dissimilar metal and Ni-Cr-Mo corrosion-resistant alloy welding. Proper base metals include ASTM B574/575/619/622/626 and available for flat position only.

Notes on usage:

1. Be sure to clean up the contaminations on the base metal, groove and pass to pass with stainless steel brush.
2. Dry the electrodes at 350~400°C for 60 minutes before using. Take out a batch of half day consumption and keep at 100~150°C during welding process.
3. Use back-step method to prevent arc starting from blowholes and hold for 3-5 seconds at every end-up.
4. Maintain short arc length to prevent porosity problem
5. Do not exceed the range of recommended current. Over heat input might decrease the impact value.
6. It is hard to proceed by overhead or vertical position, flat position in stead is recommended.

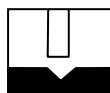
Typical chemical composition of weld metal (wt%):

	C	Mn	Si	P	S	Cr	Ni	W	Fe	Mo
AWS	≤0.02	≤1.0	≤0.2	≤0.04	≤0.03	14.5-16.5	Rom	3.0-4.5	4.0-7.0	15.0-17.0
EN ISO	≤0.02	≤1.0	≤0.2	-	-	14.5-16.5	≥50	3.0-4.5	4.0-7.0	15.0-17.0
Typical value	0.02	0.4	0.15	0.015	0.01	16.40	57	3.50	5.5	16.00

Typical mechanical properties of weld metal:

	Yield strength MPa(ksi)	Tensile strength MPa(ksi)	Elongation %
AWS	-	≥690(100)	≥25
EN ISO	≥400(58)	≥690(100)	≥22
Typical value	520(75)	735(107)	39

Welding position:



Sizes and recommended current range (DC <+>):

Diameter (mm)	3.2	4.0
Length (mm)	350	350
Amps	F 80-110	100-140

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