

# **SMT-22**

**AWS A5.14/ ASME SFA5.14 ERNiCrMo-10**

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**HYUNDAI WELDING CO., LTD.**



## ❖ Specification

AWS A5.14/ ASME SFA5.14 ERNiCrMo-10

## ❖ Applications

– FGD, offshore structure and petrochemical plants

## ❖ Characteristics

–Extremely high resistance for corrosion of a limited part  
– Welding for inconel 625+601, hastelloy C-22, and overlay of Ni-alloy metals

## ❖ Shielding

Ar, Ar+He

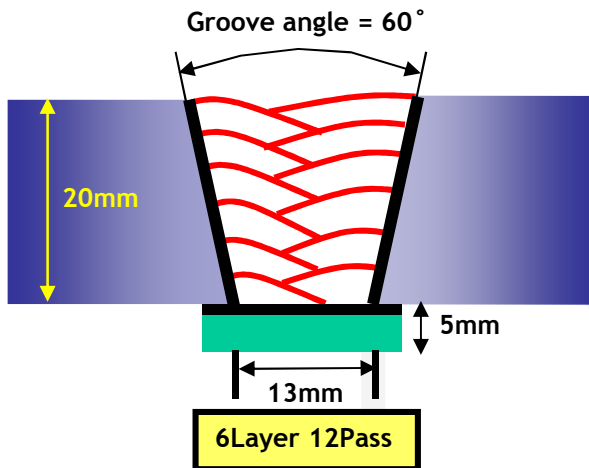
## ❖ Packing

<b>Dia.</b>	1.0mm (0.040in)	1.2mm (0.045in)	1.6mm (1/16in)
<b>Spool</b>	12.5kg (28lbs)		
<b>Dia.</b>	2.0mm (5/64in)	2.4mm (3/32in)	3.2mm (1/8in)
<b>TIG</b>	5kg (11lbs)		



## Mechanical Properties & Chemical Composition of All Weld Metal (GMAW)

### ❖ Welding Condition



Size(mm)	: 1.2mm (GMAW)
Shielding Gas	: Ar+30%He
Gas flow(ℓ /min.)	: 20~25
Amp.(A) / Voltage(V)	: 190/29
Stick-Out(mm)	: 20
Speed(cm/min.)	: 30

### ❖ Typical Chemical Composition of Wire(wt%)

C	Si	Mn	P	S	Ni	Cr	Mo	Fe	W
0.009	0.06	0.381	0.001	0.001	55.58	21.47	14.19	4.13	2.85
≤0.015	≤0.08	≤0.5	≤0.020	≤0.010	Rem.	20.0~22.0	12.5~14.5	2.0~6.0	2.5~3.5
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### ❖ Typical Mechanical Properties of All-Weld Metal (Ar+30% He)

Tensile Test		
T.S. MPa (ksi)	EL. (%)	
780 (113)	44.0	
AWS A5.14 ERNiCrMo-10	≥760	-

CVN Impact test Joule (ft-lbs)						
°C (°F)	X1	X2	X3	X4	X5	Avg.
-196 (-320.8)	70 (52)	60 (44)	65 (48)	68 (50)	64 (47)	65.4 (48.2)

This information is provided solely for the purpose of confirming product conformance with applicable standards. The serviceability of a product or structure utilizing this type of information is and must be the sole responsibility of the builder/user. Many variables beyond the control of HYUNDAI WELDING CO., LTD. affect the results obtained in applying this type of information. These variables include, but are not limited to, welding procedure, shielding gas, plate chemistry and temperature, weldment design, fabrication methods and service requirements.



# Bead Appearance (GMAW)

## ❖ Bead Appearance (H-Fillet )

Welding Condition: 190A/29V, Base Metal : ASTM AS36	
H-Fillet	
Bead On Plate	

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