

## SAW WIRE & FLUX:



- Product Introduction
- Typical Application
- Product Performance
- Main Competitive Products

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## KEY FLUX FEATURES



- Easy slag removal on both root and fill passes
- Excellent weld bead appearance
- Well-suited to weld S355 and 12MnNiVR (Q490 grade) combining with Premierweld AGW-AT12 and PREMIERWELD® AGW-ATNK

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## PREMIERWELD AGW-AT12 (AWS A5.17: EM12K)



- Low C, medium Mn, low Si general purpose SAW wire
- Good choice for a wide range of application with single or multiple pass SAW welding
- Weld with **PREMIERWELD® AGW-ATF** flux for S355 grade plate in tank girth welding application

Chemical Composition -- Solid Wire (Wt %), Typical

Wire	C	Mn	Si	P	S
Requirements -AWS EM12K	0.05-0.15	0.80-1.25	0.10-0.35	<=0.030	<=0.030
Premierweld AGW-AT12	0.12	1.03	0.26	0.009	0.008

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## PREMIERWELD AGW-ATNK (AWS A5.23: ENi1K)



- Low C, medium Mn, high Si and 1% Ni SAW wire
- Use with **PREMIERWELD® AGW-ATF** flux for 12MnNiVR (Q490 grade) grade plate in tank girth welding application
- Use with basic neutral fluxes in order to obtain excellent impact properties

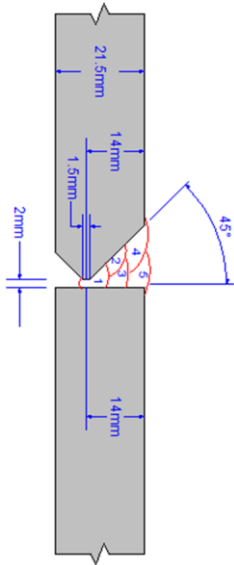
Chemical Composition -- Solid Wire (Wt %), Typical

Wire	C	Mn	Si	P	S	Cu	Ni
Requirements -AWS ENi1K	<=0.12	0.80-1.40	0.40-0.80	<=0.020	<=0.020	<=0.35	0.75-1.25
Premierweld AGW-ATNK	0.085	1.13	0.51	0.011	0.01	0.11	1.08

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## TYPICAL APPLICATION



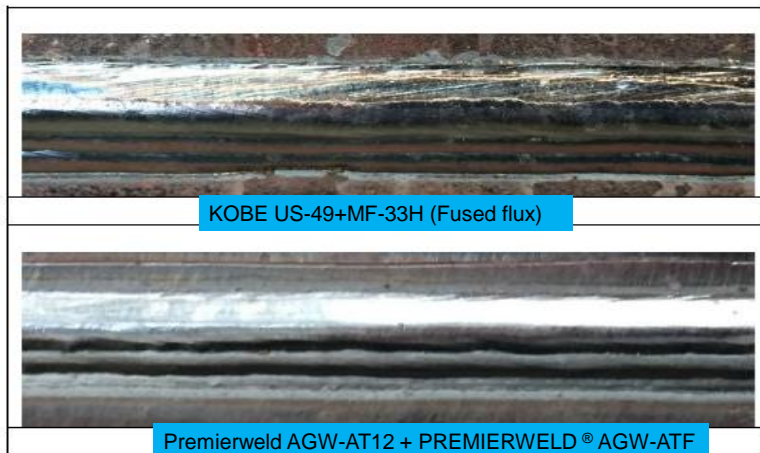
Pass	Current A	Voltage V	ESO mm	Speed cm/min	Gun Angle	Inter-layer Temp.
1	450	26--27	25	36	30°	RT
2	450	26--27	20	53-73	30°	100°
3	450	26--27	20	55-65	30°	115°
4	450	26--27	20	55-65	30°	128°
5	450	26--27	20	75-90	30°	140°



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## PRODUCT PERFORMANCE



### Benchmarking Results

- Both good on root pass slag removal
- PREMIERWELD® AGW-ATF provides better/smoothed bead appearance

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## PRODUCT PERFORMANCE

PREMIERWELD® AGW-ATNK + PREMIERWELD® AGW-ATF  
 Base metal: 12MnNiVR



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## PRODUCT PERFORMANCE

Combination	Joint	Base Metal	T.S (MPa)	Y.S (MPa)	Bend	Impact (-20°C)
AGW-ATF + Premierweld AGW-AT12	Actual Joint	Q345	520	-----	Pass	AVG. 74J
AGW-ATF + Premierweld AGW-AT12	AWS	Q345	550	440	-----	AVG. 89J
AGW-ATF + Premierweld AGW-ATNK	Actual Joint	12MnNiVR	665	-----	Pass	AVG. 73J
AGW-ATF + Premierweld AGW-ATNK	AWS	12MnNiVR	600	510	-----	AVG. 75J

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## TYPICAL COMPETITIVE PRODUCTS

- KOBE: US-49 Wire + MF-33H Fused flux
- ATLANTIC: CHW-S7 CG wire + CHW-F62 Fused Flux
- HYUNDAI: EH14 Wire + S737 Fused Flux