

**PREMIARC™ DW-308H** [AWS A5.22 E308HT1-1/4]

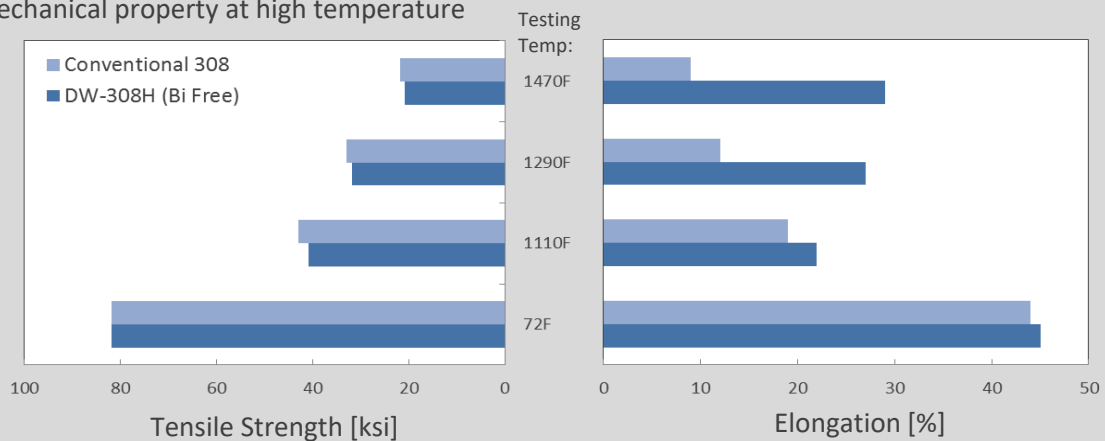
**PREMIARC™ DW-316H** [AWS A5.22 E316T1-1/4]

**PREMIARC™ DW-347H** [AWS A5.22 E347T1-1/4]

### Features and typical fields of application

- Bi-free formula suitable for welding joints whose service temperature or post weld heat treatment exceeds 900°F(500°C) to improve ductility or to prevent inter-granular cracking when exposed to high temperature service. Bismuth is known to deteriorate at high temperatures causing weld metal failure.
- All positional welding with either 75%Ar-25%CO<sub>2</sub> gas or 100%CO<sub>2</sub>
- Flat bead profile with easy mig-gun operation in the flat and horizontal positions as well as out of position contribute to high productivity .

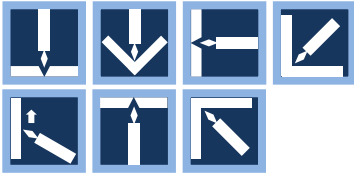
Mechanical property at high temperature



### Typical chemical composition and mechanical properties of weld metal per AWS A5.22

	Shielding Gas	C	Si	Mn	Cr	Ni	Mo
DW-308H	75%Ar-25%CO <sub>2</sub>	0.06	0.45	1.36	19.0	9.4	Tr.
DW-316H		0.05	0.38	1.39	18.8	11.6	2.40
DW-347H		0.03	0.47	1.65	19.2	9.7	Tr.
	Shielding Gas	Nb	Bi	FNW*	TS (ksi)	El (%)	
DW-308H	75%Ar-25%CO <sub>2</sub>	Tr.	<0.001	6	86	43	
DW-316H		Tr.	<0.001	6	83	42	
DW-347H		0.57	<0.001	8	94	38	

\*: Ferrite Number by WRC Diagram (1992)



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**Approval**

CWB (DW-308H)

**Recommended welding conditions and deposition rate**

Wire Dia.	Wire Feed Speed (in/min)	Welding Current (A)	Arc Voltage (V)	Deposition Rate (lbs/hr)	Wire Stick-Out	Shielding Gas Flow Rate (CFH)
0.045"	210	130	24-26	5.0	5/8-3/4"	40-50
	275	155	25-27	6.0		
	330	175	26-28	6.8		
	380	190	27-29	8.0		
	440	210	28-30	9.5		
	540	230	28-31	10.6		
	610	250	30-33	12.0		

Table shown are approximate values that will vary depending on welding conditions (WESO, Cable length etc.). Arc voltage shown are for straight CO<sub>2</sub> shielding gas. For 75%Ar-25%CO<sub>2</sub> use two volts less than shown.

**Available Products**

Wire Dia.	0.045"	Package	28 lbs spool
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**DISCLAIMER**

- Information in this material, such as chemical compositions and mechanical properties, is typical or an example for explaining the features and performances of our products, and it does not mean guarantee unless otherwise it is specified.
- Information contained herein is subject to change without notice. Please kindly contact Kobelco for latest information.



**WARNING:** This product can expose you to chemicals including Nickel and Titanium Dioxide, which are known to the State of California to cause cancer, and Chromium, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**KOBELCO WELDING OF AMERICA INC.**

