For Flux Cored Arc Welding

GFW308H

Applicable Specification
JIS Z 3323 TS308H-BiF-FB0

AWS A5.22 E308HT0-1/4

Applications and Characteristics

TASETO GFW308H is used for welding of Type 304H for high temperature service. As ferrite content of welding metal is controlled to 3-8% in schaeffler's diagram, mechanical properties of weld metal in elevated temperature have been improved.

Notes on Usage

* Please refer "Guideline for Welding Stainless Steel with GFW Wires".

Chemical Composition of All Weld Metal (%)

	С	Si	Mn	P	S	Ni	Cr	Mo	Cu
Typical	0.045	0.45	1.43	0.022	0.005	9.88	19.22	0.02	0.02

Ferrite Content of All Weld Metal

* Typical Ferrite Content: 6.3% (Schaeffler's Diagram)

7.1FN (DeLong's Diagram)

6.4% (Ferrite Scope)

Mechanical Properties of All Weld Metal

	Test Temp.	0.2% Proof Stress (MPa)	Tensile Strength (MPa)	5D Elongation (%)
	Room Temp.	404	617	43.0
Typical	$300^{\circ}\!\mathrm{C}$	319	453	27.1
	$550^{\circ}\!\mathrm{C}$	246	365	29.3
	$600^{\circ}\!\mathrm{C}$	244	331	25.0
	$650^{\circ}\!\mathrm{C}$	215	270	35.2

Creep Rupture Strength

	Test Temp. & Time	Strength
Trmical	$550^{\circ}\text{C} \times 1000\text{h}$	240 MPa
Typical	$650^{\circ}\text{C} \times 1000\text{h}$	127 MPa

Absorbed Energy

	PWHT condition	Absorbed Energy
	As welded	75 J
Typical	$650^{\circ}\text{C} \times 1000\text{h}$	$56\mathrm{J}$
	$750^{\circ}\text{C} \times 1000\text{h}$	$52~\mathrm{J}$

Sizes Available, Shielding Gas

Size (mm)	Shielding Gas
1.2	CO ₂ or Ar+20%CO ₂ , 20L/min
1.6	CO ₂ or Ar+20%CO ₂ , 20L/min