

# GEEFLUX 550

## IDENTIFICATION

GEEFLUX 550

## CLASSIFICATION

AWS/SFA 5.17 : F7A8 EH10K

AWS/SFA 5.17 : F7A6 EM12K

AWS/SFA 5.17 : F7P8 EH12K

AWS/SFA 5.23 : F7P6 EA2-A2

AWS/SFA 5.23 : F7A(P) 2EA4-A4

AWS/SFA 5.23 : F7P2 EB2-B2;

AWS/SFA 5.23 : F9P2 EB3-B3

AWS/SFA 5.23 : F9P8 EF3-F3

AWS/SFA 5.23 : F9(P)2 EG-G

AWS/SFA 5.23 : F7A10-ENi1-Ni1

AWS/SFA 5.23 : F7P10-ENi2-Ni2

## DESCRIPTION

Geeflux 550 is an agglomerated flux of fluoride basic type for joining and surfacing and applications with dissimilar steels. Mainly for high strength and cryogenic fine grained structural steels. The Si and Mn pick-ups and burn-off rates are Neutral because of its metallurgical behaviour. Flux is weldable with almost every wire electrode. The flux can be used for tandem and multi wire welding with DC and AC. Very good slag detach-ability.

## MAIN CONSTITUENTS

SiO <sub>2</sub> + TiO <sub>2</sub>	CaO + MgO	Al <sub>2</sub> O <sub>3</sub> + MnO	CaF <sub>2</sub>
15%	35%	20%	25%

## CHEMICAL COMPOSITION OF THE WIRE (AS PER AWS/SFA 5.17)

Wire	C	Si	S	P	Mn	Cu
<b>EH10K</b>	0.07 - 0.15	0.05 - 0.25	0.025 max	0.025 max	1.30 - 1.70	0.35 max
<b>EM12K</b>	0.05 - 0.15	0.10 - 0.35	0.030 max	0.030 max	0.80 - 1.25	0.35 max
<b>EH12K</b>	0.06 - 0.15	0.20 - 0.65	0.025 max	0.025 max	1.50 - 2.00	0.35 max

## CHEMICAL COMPOSITION OF THE WELD METAL (AS PER AWS/SFA 5.23)

Wires	C	Mn	Si	S	P	Cr	Mo	Cu	Ni
<b>EA2-A2</b>	0.12 max	1.40 max	0.80 max	0.030 max	0.030 max	-	0.40 - 0.65	0.35 max	-
<b>EA4-A4</b>	0.15 max	1.60 max	0.80 max	0.030 max	0.030 max	-	0.40 - 0.65	0.35 max	-
<b>EB2-B2</b>	0.05 - 0.15	1.20 max	0.80 max	0.030 max	0.030 max	1.0 - 1.5	0.40 - 0.65	0.35 max	-
<b>EB3-B3</b>	0.05 - 0.15	1.20 max	0.80 max	0.030 max	0.030 max	2.0 - 2.5	0.90 - 1.20	0.35 max	-
<b>EF3-F3</b>	0.17 max	1.25 - 2.25	0.80 max	0.030 max	0.030 max	-	0.40 - 0.65	0.35 max	0.7 - 1.10
<b>EG-G</b>	0.06 max	1.30 max	0.25 max	0.025 max	0.025 max	-	-	0.35 max	1.20 max
<b>ENi1-Ni1</b>	0.12 max	1.60 max	0.80 max	0.025 max	0.030 max	0.15 max	0.35 max	0.35 max	0.75 - 1.10
<b>ENi2-Ni2</b>	0.12 max	1.60 max	0.80 max	0.025 max	0.030 max	-	-	0.35 max	2.0 - 2.90

**MECHANICAL PROPERTIES OF THE WELD METAL (RANGE) IN AS-WELDED**

Wire	UTS (MPa)	YS (MPa)	EL (%) (L=4D)	CVN Impact Value	
				Temp.	Joules
<b>EH10K</b>	510 min	400 min	22 min	+20°C	160 J
				± 0°C	140 J
				-20°C	100 J
				-40°C	47 J
<b>EM12K</b>	520 min	420 min	26 min	+20°C	160 J
				± 0°C	140 J
				-20°C	100 J
				-40°C	50 J
<b>EM12K</b>	550 min	460 min	22 min	+20°C	160 J
				± 0°C	140 J
				-20°C	120 J
				-40°C	70 J
<b>EA2 - A2</b>	550 min	470min	22 min	+20°C	160 J
				± 0°C	140 J
				-20°C	100 J
				-40°C	47 J
<b>EA4 - A4</b>	550 min	470 min	22 min	+20°C	160 J
				± 0°C	140 J
				-20°C	100 J
				-40°C	47 J
<b>EB2-B2</b>	520 min	420 min	22 min	-20°C	100J
<b>EB3-B3</b>	640 min	530 min	22 min	-20°C	100J
<b>EF3-F3</b>	640 min	550 min	22 min	+20°C	160 J
				± 0°C	140 J
				-20°C	110 J
				-40°C	70 J
<b>EG - G</b>	620 min	550 min	22 min	+20°C	160 J
				± 0°C	140 J
				-20°C	110 J
				-40°C	70 J
<b>ENi1-Ni1</b>	560 min	500 min	22 min	+20°C	180 J
				± 0°C	160 J
				-20°C	120 J
				-40°C	100 J

**MECHANICAL PROPERTIES OF THE WELD METAL (RANGE) IN AS-WELDED**

Wire	UTS (MPa)	YS (MPa)	EL (%) (L=4D)	CVN Impact Value	
				Temp.	Joules
ENi2-Ni2	520 min	420 min	22 min	+20°C	160 J
				± 0°C	140 J
				-20°C	120 J
				-40°C	100 J

**REDRYING CONDITION :** It is advisable to redry the flux for about 2 hours @ 300-350°C prior to use.

**Grain Size :** 3-20 mesh

**BASICITY ACCORDING TO BONISZEWSKI :** 3.5 % (Mol)/ 2.6% Wt

**PACKING PARAMETERS :** 25.0 Kg Flux in a Aluminium bag (Vacuum Packed)