EN ISO 14174 S A FB 1 55 AC H5

HOBART® HN-521

Characteristics and Applications:

HOBART HN-521 is a fluoride-basic flux with high basicity and low impurity levels such as P and S. It is suitable for welding on DC and AC using single and tandem wire process.

It also specially suited to narrow gap welding on AC. it provide excellent weld-ability and due to neutral behavior, high mechanical properties of weld metal can be controlled by using the appropriate wire grade.

- Fine grain structural steels for low temperature requirements.
- Offshore applications.
- High tensile fine grain steels.

Notes on usage:

1. Flux exposed to atmosphere for an excess period must be re-baked at 300~350 ℃ for 2~4hr holding time.
2. Re-circulation of flux should be limited to three cycles. After this, the flux should be mixed with twice its volume of new flux prior to further use.
3. We recommend using heated hoppers for storage of flux in production.

Typical chemical composition of weld metal (wt%)

Wire	Weld metal classification		C	Mn	Si	P	S	Mo	Ni	Cr
	AWS A5.17	EN ISO 14171-A								
HOBART H12K	F7A8/P8-EH12K	S 42 6 FB S3Si	0.08	1.50	0.39	0.014	0.003	-	-	-
HOBART M12K	F7A6-EM12K	S 38 5 FB S2Si	0.06	1.16	0.23	0.015	0.005	-	-	-
Wire	Weld metal classification		C	Mn	Si	P	S	Mo	Ni	Cr
	AWS A5.23	EN ISO 14171-A								
HOBART 12E	F8A6/P6-EA2-A2	S 42 5 FB S2Mo	0.06	0.99	0.19	0.013	0.004	0.47	-	-
HOBART 13E	F9A4-EG-G	S 50 4 FB SZ	0.057	1.26	0.41	0.017	0.004	0.41	-	-
HOBART 32E	F8A10-ENi2-Ni2	S 42 7 FB S2Ni2	0.06	0.98	0.24	0.007	0.002	-	2.23	-
HOBART 40E	F8A10-EG-G	S 46 7 FB SZ	0.07	1.30	0.30	0.012	0.003	0.23	0.93	-
HOBART 41E	F9A6/P4-EF3-F3	S 50 6 FB S3Ni1Mo	0.07	1.55	0.22	0.011	0.002	0.48	0.98	--
SubCor H12KN	F8A8/P6-ECG-G	-	0.07	1.62	0.31	0.008	0.002	--	2.04	--

Typical mechanical properties of weld metal

Wire	Yield stress (MPa)	Tensile strength (MPa)	Elongation (%)	Charpy V-Notch (J)	Temperature (℃)	PWHT
HOBART H12K	463	557	34	160	-50	--
				115	-62	--
	407	517	34	158	-50	620℃*8hr
				148	-62	
HOBART M12K	414	493	38	190	-50	AW
HOBART 12E	498	573	28	130	-50	--
	520	589	32	88	-50	620℃*1hr
HOBART 13E	656	670	25	90	-40	AW
HOBART 32E	484	563	32	63	-73	AW
HOBART 40E	539	618	29	50	-73	AW
HOBART 41E	655	716	26	59	-50	AW
	571	644	29	76	-40	620℃*1hr
SubCor H12KN	562	643	30	136	-62	AW
	517	604	30	165	-50	620℃*1hr

HOBART FILLER METALS