

**AWS A5.17-97 : F7A4-EM12K
F7A6- EH12K**
AWS A5.23-07 : F8A4/P4-EA2-G
EN 756 : S 42 2 AB S2Si
S 46 4 AB S3Si
S 50 3 AB S2Mo
EN 760 : SA AB 168 AC

HOBART® HN-590

Description :

HOBART HN-590 is an agglomerated aluminates basic flux, with low Mn and Si pick up, for welding non-and low alloyed steels with single as well multiple wire process. Designed for welding on AC and DC and suitable for two-run or multiple layer technique with excellent slag release and good operability. In combination with appropriate wire ,mechanical properties at low temperatures can be achieved.

- shipbuilding
- boiler and pressure vessel
- pipe steels up to API-5L-X70
- low alloyed and fine grain structural steels

Notes on Usage:

- (1) When the flux has been affected by moisture pick up, it has to be re-dried at a temperature of 300 to 350°C for 1 hour.
- (2) Adding proper quantity of new flux with the used one to maintain good quality of weld metal.

Typical chemical composition all weld metal, weight %

Wire	C	Si	Mn	P	S	Mo	other
Hobart M12K (S2Si)	0.06	0.4	1.7	<0.03	<0.02	--	--
Hobart H12K (S3Si)	0.05	0.4	2.0	<0.03	<0.02	--	--
Hobart 12E (S2Mo)	0.05	0.3	1.6	<0.03	<0.02	0.44	--

Typical mechanical properties, all weld metal

Wire	Yield Stress N/mm ²	Tensile Strength N/mm ²	Elongation %	Charpy I.V. J	temperature °C	Remark
Hobart M12K	460	530	33	40	-40	--
				65	-29	
Hobart H12K	508	600	31	32	-50	AW
Hobart 12E	529	617	26	46	-40	AW
	549	607	27	40	-40	620°C/1hr

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