

HARDFACE AP-O/S/G

Welding Wire

CLASSIFICATIONS

AS2576-1982, 1730-B7, B1, B5
WTIA (TN4), 1730-B7, B1, B5

DESCRIPTION

Hardface AP is an all purpose build up and joining cored wire. It produces an Austenitic weld deposit which has excellent work hardening properties. The degree of work hardening is dependent on the amount of impact on the rebuilt component. It is used for rebuilding components exposed to high impact or heavy loads and can be used on Ferritic and Austenitic steels including "Hadfield" Manganese steel.

AP-O - Open Arc (Self Shielded - Gasless) Wire

AP-S - Submerged Arc Wire

AP-G - Gas Shielded Wire

TYPICAL APPLICATIONS

Railroad frogs, crusher rolls, hammers, steel mill rolls and all components where a work hardening deposit is desirable.

Deposit can be multi-layered.

TYPICAL CHEMICAL COMPOSITION

C - 0.40%, Mn - 14.5%, Cr - 14.5%, Si - 0.75%

TYPICAL HARDNESS

22 - 24 HRC (As Welded), 45 - 47 HRC (Work Hardened)
244 - 260 HB (As Welded), 440 - 470 HB (Work Hardened)

AVAILABLE SIZES

1.2mm, 1.6mm, 2.0mm, 2.4mm, 2.8mm, 3.2mm

WELDING PARAMETERS

Open Arc (Self Shielded - Gasless)

Wire Diameter	Current (Amps)		Voltage(Volts)		Stick-out (mm)		Polarity
	Range	Optimum	Range	Optimum	Range	Optimum	
1.6mm	150-350	270	24-28	24	25-50	25	DC+
2.0mm	200-400	300	26-30	26	25-50	35	DC+
2.4mm	250-450	350	26-30	28	25-50	40	DC+
2.8mm	250-450	400	28-32	30	25-50	40	DC+

No gas required

Submerged Arc

Wire Diameter	Current (Amps)		Voltage(Volts)		Stick-out (mm)		Polarity
	Range	Optimum	Range	Optimum	Range	Optimum	
2.4mm	200-450	350	26-30	30	25-60	30	DC+
2.8mm	250-550	400	28-32	30	25-60	30	DC+
3.2mm	300-650	500	28-32	30	25-60	30	DC+

Use with neutral agglomerated flux, eg WAF 325, WAF 350

Gas Shielded

Wire Diameter	Current (Amps)		Voltage (Volts)		Stick-out (mm)		Polarity
	Range	Optimum	Range	Optimum	Range	Optimum	
1.2mm	100-280	220	18-30	22	15-25	20	DC+
1.6mm	150-350	300	22-30	26	15-25	20	DC+

Use with Argon + 15-20% CO₂ gas - Flow rate 15-20 litres/minute

Our products, and any recommended practices, should be tested by the user under actual service conditions to determine their suitability for any particular purpose. The results obtained using this product/information are affected by variables such as welding procedure, base material composition, operating temperature, weldment design, method of fabrication and service requirements which are beyond our control. It is the sole responsibility of the user to determine the serviceability of a structure using this product and the information contained in this data sheet.

DSHF:AP-OSG

REV: 00 10/93