

Superior Moisture Resistant
C-Mn and low-alloy steels

STARBLAZE PRIME 7018-A1 H4R

- ★ H4R grade, outstanding low moisture pick up.
- ★ Ultra smooth finely rippled weld beads.
- ★ Less than 4.0 ml /100g diffusible hydrogen.
- ★ Superior reliability for the critical welding of C-Mn microalloyed & low alloy structural steels.
- ★ Radiographic out of position welds including pipe welding.

Classification: AWS A 5.5: E 7018 – A1 H4R

ISO 3580-A : E MoB 3 2 H5

Description and Applications:

Moisture resistant, hydrogen controlled, Iron powder basic type electrode for boiler, pressure vessel and pipe line construction, for service temperature upto 525°C. Excellent all position electrode for creep resistant 0.50 Mo and 1% Cr- 0.50% Mo Steels. Specially designed for 16Mo3- steel.

Tough & reliable x-ray quality welds on cast steels, low alloy, high tensile steels...pressure vessels, tubes, cement kilns, heavy equipments, machine frames & chassis.

Base Materials:

Constructionsteels: EN 10025: S 235, S 275, S 355
Ship steels: A - E, A 32 – E 32, A 36 – E 36, A 40 – E 40
Fine grained steels: EN 10113-2: S 275, S 355, S 420, S 460
EN 10113-3: S 275, S 355, S 420, S 460
Boiler steels: EN 10028-2: P 235, P 265, P 295, P 355, 16Mo3
Pipe steels: EN 10216-1: P 235, P 275
Cast steel: EN 10217-1: P 355
EN 10213-2: GP 240 R, G20Mo5

Typical weld metal Chemical Composition (%)

C	Si	Mn	Mo	P	S
0.07	0.40	0.80	0.50	0.020	0.016

All weld metal mechanical properties (typical) as welded:

Yield strength Rp(N/mm ²)	Tensile strength Rm(N/mm ²)	Elongation A ₅ (%)	Charpy impact value ISO-V J +20°C
≥420	550-650	24	100

All weld metal mechanical properties (typical) stress relieved (620± 15° for 1hr.)

Yield strength Rp(N/mm ²)	Tensile strength Rm(N/mm ²)	Elongation A ₅ (%)	Charpy impact value ISO-V J +20°C
≥420	520-620	26	150

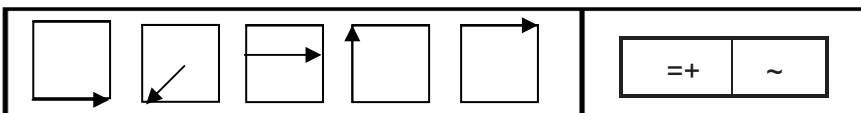
Amperes (A)

2.50mm	3.15mm	4.0mm	5.0mm
60- 90	100- 140	140- 180	180- 230

Welding instruction

Keep dry and avoid condensation, Re-dry at 300-350°C/1hr if necessary.

Welding positions



Stellaris Specialities India Ltd.

(Division: StarBlaze India)

GST No.: 06AAICS2482B1ZK / Legal Metrology No.: GOI/DL/2022/4850

Plant 1: A-125, Okhla Industrial Area, Phase 2, New Delhi - 110020

Corporate Office & Plant 2: 552, Pace City II, Sector 37, Gurugram, Haryana - 122001

Plant 3: B-100, Mayapuri Industrial Area, Phase-1, Near Police Station, New Delhi-110064

Plant 4: A-334, RIICO Industrial Area, Karoli, Bhiwadi, Rajasthan - 301707

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