



Perfect Pass is a line of quality-first maintenance & repair alloys.

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NA111

DATA SHEET

PREMIUM NICKEL ELECTRODE FOR WELDING CAST IRON

GENERAL CHARACTERISTICS:

Specially formulated coating gives a pulsed arc for low temperature welding of cast irons. When properly applied the arc will penetrate surface skin and contaminants to produce a porosity free weld. The heat affected zone is not hardened and stress cracks are almost always avoided.

APPLICATIONS:

Low temperature welding of cast iron in all positions. Repairs breaks and cracks in engine blocks, gear housing, and machine bases. Ideal for filling holes and building up worn or missing sections which must be machined to final dimension after welding. Also, for joining cast iron to steel, iron, stainless steel, copper, Monel, etc.

MECHANICAL PROPERTIES:

- Tensile Strength: up to 50,000 psi (345 N/mm²)
 - Hardness (HB): approx. 160 HB
 - Color Match: Similar to Cast Iron
 - Current: AC or DC straight polarity (Electrode -)
- | | | | | |
|------------|-------|--------|--------|---------|
| • Amperage | 30-70 | 55-110 | 75-135 | 100-175 |
| (INCHES) | 3/32" | 1/8" | 5/32" | 3/16" |
| (MM) | 2.5 | 3.25 | 4.0 | 5.0 |

PROCEDURE:

Clean weld area if possible. Bevel joint to form a "U" Groove. A hole should be drilled at each end of all cracks to prevent spreading during welding. Select lowest possible amperage. Maintain a medium long arc with electrode tilted slightly in the direction of travel. Short stringer beads or narrow weave beads should be used to prevent excessive heat build-up. When breaking the arc always fill the crater and drag rod back over the weld deposit. Peening while still hot will help reduce stresses. When restriking the area start on previously deposited weld metal, not on the base material. Allow part to cool slowly.



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