

# **AUFHAUSER NICKEL 55**

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## **♦ DESCRIPTION / APPLICATION**

Aufhauser Nickel 55 is used for the welding of cast iron. This filler metal is extensively employed to overlay cast iron rolls. It is also used to repair castings. The weld metal of Aufhauser Nickel 55 is harder than that of Aufhauser Nickel 99. However, the machining can be accomplished by using carbide tipped tools.

A preheat and interpass temperature of 350° (175° C) minimum is recommended during welding, without which the weld and heat affected zones could develop cracks.

#### ◆ TYPICAL CHEMICAL COMPOSITION

<u>Carbon</u>	<u>Manganese</u>	Silicon	<u>Iron</u>	<u>Nickel</u>
.05	.25	.15	43.6	55.9

### **♦ TYPICAL MECHANICAL PROPERTIES**

Tensile Strength: 89,500 psi (620 MPa)

Yield Strength: 62,000 psi (430 MPa)

Elongation % in 2": 35%

## **♦ TYPICAL WELDING PARAMETERS:**

Diameter of Wire	Voltage (V)	Amperage (A)	Gas
.035	26 – 29	150 – 190	75 % Argon + 25 % Helium
.045	28 – 32	180 – 220	75 % Argon + 25 % Helium
.063	29 – 33	200 – 250	75 % Argon + 25 % Helium