

Select 439Ti

Description:

Select 439Ti is a ferritic stainless steel, composite metal cored electrode for gas metal arc or gas tungsten arc welding of 18 percent chromium steels used to fabricate exhaust systems. Titanium is the stabilizing agent utilized in this product. This electrode performs best when used with an argon-based shielding gas containing 2-5 percent oxygen. The use of more oxygen, or less argon, could cause excessive oxidation of the chromium and titanium. This product is designed to operate on DCEP.

Classification:

- EC439 per AWS/ANSI A5.22, ASME SFA 5.22
- EC439 per AWS A5.9:2006

Characteristics:

Select 439Ti is a composite metal cored, stainless steel electrode intended to weld ferritic stainless steels containing 18 percent chromium with a minimum of spatter, and literally no burn through on thin material. The arc transfer is a stable spray, even at relatively low current settings. Titanium stabilization imparts excellent resistance to sensitization, hence reducing the chances of stress corrosion cracking when welding over lubricants, oils, and other hydrocarbons. As this is a metal cored electrode, it offers tremendous advantages over solid wires when welding on areas of poor fit up, on thin materials, on welds where gaps must be bridged. There are also great productivity gains to be made when using Select 439Ti in place of solid wire. This 18 percent chromium composition provides better corrosion resistance at higher temperatures than the 12 percent chromium materials can achieve.

Applications:

Select 439Ti is an excellent choice for welding exhaust system components of 18 percent chromium. The titanium stabilization is usually preferred over the columbium (niobium) when aluminized or other coated steels are being welded. Typical components are fabricated from sheet stock, and include manifolds, mufflers, catalytic converters, and exhaust tubing.

Typical Composition:

Wt. %	<u>C</u>	<u>Mn</u>	<u>P</u>	<u>S</u>	<u>Si</u>	<u>Cr</u>	<u>Ti</u>
	.02	.68	.010	.010	.56	17.90	.80

Suggested Parameters:

<u>Diam. (in.)</u>	<u>Amperage</u>	<u>Optimum</u>		<u>Range</u>			
		<u>WFS</u>	<u>Voltage</u>	<u>Amperage</u>	<u>WFS</u>	<u>Voltage</u>	<u>ESO</u>
.045"	250	410	25-26	190-330	240-600	22-28	½-1"
.052"	300	350	24-25	220-460	220-620	23-30	½-1"
1/16"	350	300	26	240-520	160-500	22-31	¾-1¼"

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Notice: The results reported are based upon testing of the product under controlled laboratory conditions in accordance with American Welding Society Standards. Actual use of the product may produce different results due to varying conditions. An example of such conditions would be electrode size, plate chemistry, environment, weldment design, fabrication methods, welding procedure and service requirements. Thus the results are not guarantees for use in the field.