The Lincoln Electric Company 22801 St. Clair Avenue Cleveland OH 44117



Toughness Verification Test

This is to state that the product indicated was tested according to the procedures shown. Mechanical properties and chemical analysis of the weld deposit were as shown.

Innershield NR-233

C494RA

Diameter (in.): 1/16
Code: 9R27HE022
Position: 1G
Thickness (in.): 0.75

Current Type & Polarity: DC-

WFS (ipm): 245 Amps: 250

Volts: 23

Shielding Gas: Not Applicable Flow Rate (cfh): Not Applicable

PHT (°F): 60 Amps: 250 INT (°F): 250 Avg HI (kJ/in): 30

This product satisfies the requirements of FEMA 353, Appendix D after exposure for 8 weeks at 80°F, 80%RH.

ESO (in): 0.875

Charpy V-notch Test Results						
Temp. (°F)	Energy (ft-lbf)					
0	33					
	30					
	30					
70	61					
	58					
	57					

	Tensile Test Results						
Aging	UTS (ksi)	YP (ksi)	YS (ksi) EL (%))			
48HRS@220F	92.2	77.3	71 26				

Chemical Test Results										
	C	S	Mn	Si	P	Al	Ni			
	0.212	<0.003	0.60	0.21	0.008	0.58	0.02			

Michael J. Morlock, Certification Supervisor

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David A. Fink, Manager, Mature Products Consumable R&D

This information is provided solely for the purpose of confirming product conformance with applicable standards. The serviceability of a product or structure utilizing this type of information is and must be the sole responsibility of the builder/user. Many variables beyond the control of The Lincoln Electric Company affect the results obtained in applying this type of information. These variables include, but are not limited to, welding procedure, shielding gas, plate chemistry and temperature, weldment design, fabrication methods and service requirements.

Fema Cert No.: FM-1002531