

# ARCTEC® 41 CR-NI-MANGANESE



## GENERAL CHARACTERISTICS:

ARCTEC® 41 is chromium nickel manganese alloy for joining and build up of manganese steels. The weld deposit is highly crack resistant, has high strength and provides excellent resistance to wear caused by heavy impact and compressive loads. The deposit work hardens under conditions of continual impact. Weld metal can be flame cut. Machinable by grinding only.

## APPLICATIONS:

ARCTEC® 41 is excellent for applications subjected to continuous severe impact and compressive forces. Recommended for build up and joining of manganese steel components such as crusher rolls and jaws, bucket lips and teeth, dredge pump parts, manganese rails and frogs, hog hammers, shovel pads, tractor rollers and idlers.

## WELDING PROCEDURE:

Clean surface contaminants from weld area, remove all fatigued and work hardened metal and prepare weld area as required. Preheat and postweld heat treatment is not necessary for the weld metal, but may be specified or recommended for some base materials. Preheat is not generally recommended for welding of manganese steel. Avoid overheating of manganese steel and maintain proper interpass temperature.

## MECHANICAL PROPERTIES:

Tensile Strength	Yield Strength	Elongation	Hardness	
			As Deposited	Work Hardened
120,000psi 830 Mpa	75,000psi 510 MPa	35% - 2"	Approx. 200 HB	Approx. 500 HB

## OPERATING PARAMETERS:

WELDING PROCESS: SMAW

POLARITY: DC Reverse or AC

## Recommended Amperage:

Diameter	3.25mm 1/8"	4.0mm 5/32"	5.0mm 3/16"	6.0mm 1/4"
Amperage	120-150	140-190	170-250	250-280

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