Weld Mold Company
Serving the welding industry since 1945

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WELD MOLD 525

DESCRIPTION:
This alloy displays excellent toughness while maintaining good machining characteristics. For joining buildup, and repairing cracked or fractured steels with up to 140,000 psi tensile strengths.

APPLICATIONS:
Use for fabricating structures, machinery, assemblies and repair of heavy duty off the road equipment. It is widely used in the forging industry for the repair of hammer bases, sow blocks, rams, bolster plates columns and keyways. Also used as an underlay prior to surfacing with higher alloys.

PROCEDURE.
Remove all defects; heat checks, spalls, and cracks. Preheat the unit to a minimum of 800°F. Maintain this temperature during welding. Utilize short arc length. Peening is necessary when filling in small cavities. Peen after depositing each pass. Peening is not necessary when welding large areas such as complete impressions except on the final pass. After welding, cool the unit in still air to approximately 350°F. This is necessary to produce uniform weld hardness. When the cooling temperature is reached, immediately charge dies into a furnace at 1050°F and temper for 12 to 16 hours. On rams and sow blocks, etc., stress relieve at 1150°F. for 12 to 16 hours. Stress relieve hammer bases at 1150°F. at one hour per inch of thickness at temperature. Remove the unit from the furnace and cool in still air to room temperature.

TEMPERING DATA:	As welded	28-33 Rc
	1,100° F.	37-43 Rc
	1,025° F.	29-35 Rc
	1,050° F.	30-36 Rc
	1,075° F.	28-34 Rc

SMAW	**FCAW**	**SAW**
DC+	DC+, 100%CO_2	DC+, Use a neutral flux
	Or 75%-25% CO_2	such as L-Tec #50

TECHNICAL DATA:

Available Processes:	SMAW, FCAW and SAW
Hardness:	Rockwell C 25-30
Tensile Strength:	Up to 140,000 psi
Elongation:	Up to 23%
Machinability:	Excellent
Alloy Type:	Nickel-chromium-molybdenum