

DURACORR® 300



ISO 9001:2008 Certified

FOR ABRASION AND CORROSION RESISTANT APPLICATIONS

Duracorr® 300, is a low carbon, 12% chromium stainless steel which is produced to a nominal hardness of 300 BHN, for applications where both abrasion and corrosion resistance are required. Improved dent resistance is a strong attribute for Duracorr® 300 over other stainless steels.

Fabrication Facts

Cold Forming: For thicknesses to 3/4", a 2t bend radius minimum is recommended for bending perpendicular to the rolling direction. A 3t radius applies in the other direction.

Heat Input Control: Since grain coarsening is accompanied by some loss in toughness, limits have been placed on recommended weld heat input to constrain grain growth in the HAZ. Heat input is calculated using the following equation:

$$HI = \frac{60 (E \times I)}{1000 WS}$$

HI = Heat input (kj/in)
I = Weld current (Amps)

E = Arc voltage (Volts)
WS = Welding speed (in/min)

The maximum recommended heat input is 25 kj/in for thicknesses less than 1/2". Thicker plates have been successfully welded to AWS requirements with heat inputs to 70 kj/in. This value should only be exceeded where testing has demonstrated that weld properties meet the requirements for the desired application. In such instances, qualification of the welding procedures per an appropriate code; e.g., ANSI/AWS D1.1, "Structural Welding Code – Steel," should insure that a sound, acceptable weld is obtained.

As shown in the above equation, heat input can be controlled by restricting the welding current and/or increasing the welding speed. In general, the voltage and current employed should be set in the low to middle portion of the electrode manufacturer's range. Adjustment of torch angle and position may be required to maintain penetration and avoid slag entrapment as the speed is increased. Heat input control is also enhanced by using stringer beads (no weave) and avoiding overwelding.



Truck for salt spreading

General Information

Sizes: Available from 3/16"-2" thick, widths to 130" and lengths to 540". JADCO keeps 1/4", 3/8", and 1/2" thicknesses in stock in 96" x 240" plate size.

Properties: Hardness 260-360 BHN; when specified. Charpy-v-notch guarantees of 15 ft-lb. average at -40°F available.

Properties: Truck body liners, quarry chutes, coal processing

Typical Chemistry %								
C	Mn	P	S	Si	Cr	Ni	N	Mo
0.025	1.5	0.040	0.015	0.70	11.0/12.5	1.00	0.030	0.20/0.35

Maximums unless a range is shown.