



## RT500 RAZOR TUFF WEAR STEEL

<b>SCOPE</b>	Intended for applications requiring high abrasion resistance. Easily weldable. <b>Basic composition:</b> High-strength alloyed plate quenched and tempered to a nominal 500 BHN.												
<b>MECHANICAL PROPERTY CHARACTERISTICS</b>	<b>Surface Hardness</b>	470 BHN – 535 BHN (target: 500 BHN)											
	<b>Methods</b>	Mechanical tests in compliance with ASTM A370 (latest revision)											
	<b>Frequency</b>	Test material per heat, per size, and per heat-treat load											
<b>CHEMICAL CHARACTERISTICS</b>		<b>C</b>	<b>Mn</b>	<b>P</b>	<b>S</b>	<b>Si</b>	<b>Cu</b>	<b>Ni</b>	<b>Cr</b>	<b>Mo</b>	<b>Al</b>	<b>Ti</b>	<b>C.E.*</b>
	max.	0.32	1.50	0.020	0.015	0.45	0.20	0.75	0.65	0.55	0.070	0.045	0.72
	* Carbon equivalency using the following formula: $C.E. = C + Mn/6 + (Cr+Mo+V)/5 + (Ni+Cu)/15$ Typical CE levels – 0.55-0.62												
<b>METALLURGICAL AND PHYSICAL CHARACTERISTICS</b>	<b>Processing</b>	Produced to achieve fine-grained and clean microstructure with low levels of non-metallic inclusions. Material is subsequently austenitized, heat-treated to achieve mechanical property requirements. Material is then flattened to meet flatness requirements after heat treatment.											
	<b>Straightness Tolerance</b>	1/8 inch in 5 FT maximum deviation											
	<b>Length Tolerance</b>	-0/+1" (unless specially ordered)											
	<b>Width Tolerance</b>	-0/+1.25" (unless specially ordered)											
	<b>Flatness Tolerance</b>	ASTM A6 Table 14											
<b>RECOMMENDED WELDING PRACTICES*</b>	Can be welded by conventional processes such as SMAW, SAW and GMAW provided that the weld procedures used are suitable for this grade and the intended service of the steel. <b>Proper welding procedures should include:</b> 1. Low Hydrogen conditions must be used. 2. Slow cooling rates should be avoided to prevent low toughness in the HAZ. 3. Excessive heating (>350° F) of the material should be avoided to prevent softening. * These statements are guidelines. JADCO Manufacturing is not responsible for the results of any welding work.												

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