



RT500 RAZOR TUFF WEAR STEEL

SCOPE	Intended for applications requiring high abrasion resistance. Easily weldable. Basic composition: High-strength alloyed plate quenched and tempered to a nominal 500 BHN.												
SIZE RANGES*	Thickness	1/8" and 3/16"											
	Dimensions	60" width x 120" length											
	* Other thicknesses and sizes available upon request.												
MECHANICAL PROPERTY CHARACTERISTICS	Surface Hardness	470 BHN – 535 BHN (target: 500 BHN)											
	Methods	Mechanical tests in compliance with ASTM A370 (latest revision)											
	Frequency	Test material per heat, per size, and per heat-treat load											
CHEMICAL CHARACTERISTICS		C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	Ti	C.E.*
	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 this formula: $C.E. = C + Mn/6 + (Cr+Mo+V)/5 + (Ni+Cu)/15$ Typical CE levels – 0.55-0.62												
METALLURGICAL AND PHYSICAL CHARACTERISTICS	Processing	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.											
	Straightness Tolerance	1/8" in 5' maximum deviation											
	Length Tolerance	-0/+1" (unless specially ordered)											
	Width Tolerance	-0/+1.25" (unless specially ordered)											
	Flatness Tolerance	ASTM A6 Table 14											
RECOMMENDED WELDING PRACTICES*	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. Proper welding procedures should include: 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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