



Astralloy 4800®

JOHNSTON TOWNSHIP TRUSTEES — CORTLAND, OHIO

March 2011 — Johnston Township Trustees (Courtland, OH) were referred to Astralloy Steel Products by Eagle Welding to resolve wear issues with their snow plow blades. Eagle Welding stated “Astralloy offers the best material for snow plow blades”. A high level of wear on the blades was forcing Johnston Township Trustees to replace the blades after 24 hours of use. In addition, Johnston Township wanted to extend the overall life of their plow blades in order to decrease maintenance and change time/costs during the plow season. The existing blades were reengineered with Astralloy 4800 by Astralloy Steel Products. The reengineered blades were successful in reducing wear issues and extending the life of the equipment. Johnston Township and several of the surrounding townships are now using Astralloy 4800 blades in all of their snow plows.

TECHNICAL SPECIFICATIONS

Astralloy 4800® work hardens up to an additional 70 BHN in service. This product is suitable for all kinds of abrasion, sliding or impact, dry or wet media, including high temperature abrasion above 660°F (350°C).

SOLUTION

Incorporating Astralloy 4800 into Johnston Township Trustees’ snow plows extended the life of their plows to approximately 72 hours, versus the 24 hours they were previously receiving. In addition to extending the wear life of the snow plows, our product was found to be more economical over time. In addition, the use of Astralloy 4800 decreased the amount of money spent on blade parts and maintenance.



“The Astralloy 4800® endures approximately 72 hours of plowing vs. 24 hours of plowing achieved by using the previous product.”

– Johnston Township Trustees

Chemical Composition* – % Weight							
C	Mn	P	S	Ni	Cr	Mo	Other
≤ .20	≤ 1.60	≤.018	≤ .005	≈ .20	≤ 1.90	≤ .40	≤ .20

Physical Properties – Typical Values at 68° F				
BHN Hardness	Tensile Strength	Yield Strength	Elongation in 2"	Charpy Test Toughness Index
370	174 ksi	130 ksi	12 %	27 ft. lbs. @ RT

Physical Properties	
Expansion Coefficient — Avg (x 10-6.°C-1)	
20° – 100°C (68°–212°F)	12.4
20° – 200°C (68°–392°F)	13.1
20° – 300°C (68°–572°F)	13.9
20° – 400°C (68°–752°F)	14.4
20° – 500°C (68°–932°F)	14.7
20° – 600°C (68°–1112°F)	15.0

Astralloy’s product is very flexible and can be configured into various designs to fit your specific plow requirements. We are also happy to reengineer your existing blades to provide the best solution possible.

Contact Us Today to Discuss Your Plow Blade Needs:
866-587-6970 • mainsales@astralloy.com • www.astralloy.com