

# Tooltectic 6Nhss

Metals And Welding Specialities Supplying to over 40+ countries including USA, Europe, Middle East, Asia.



[Tooltectic 6NHSS MIG & TIG Welding Wire](#) is a premium welding consumable that has been to be exact designed to deliver excellent wear resistance, toughness, and durability. Apart from giving the user a very stable arc with consistent wire feeding, this welding wire also produces top-notch welds with very low spatter and excellent bead appearance. It is the material of choice for the repair and restoration of parts that undergo severe abrasion, impact, and metal-to-metal wear in the mining construction power generation, and heavy engineering sectors.

This Tooltectic 6NHSS Welding Wire which can be used with MIG and TIG welding processes has remarkable mechanical features and it performs well even in extreme use conditions. The weld metal obtained shows very good hardness preservation, it is more resistant to cracking, and it has a prolonged life that contributes to the reduction of maintenance expenses and equipment downtime. Due to its adaptability and stable welding performance, it is a perfect hard facing material as well as for tool repair, die restoration, and the renewal of essential industrial components that require high wear protection.

## Tooltectic 6Nhss Mig & Tig Welding Wire Chemical Composition

Element	Typical wt% (representative M2-type HSS weld deposit)	Notes
C (Carbon)	0.78 – 1.05	Controls hardness and carbide formation
Cr (Chromium)	3.75 – 4.50	Improves hardenability and wear resistance
Mo (Molybdenum)	4.50 – 5.50	Promotes high-temperature hardness (red hardness)
W (Tungsten)	5.50 – 6.75	Forms hard carbides for wear resistance
V (Vanadium)	1.75 – 2.20	Refines carbides, improves toughness and wear resistance
Si (Silicon)	0.20 – 0.45	Deoxidizer; minor strengthening
Mn (Manganese)	0.15 – 0.40	Improves hardenability; usually low in HSS
Ni (Nickel)	≤ 0.30	Usually present only in trace amounts
Fe (Iron)	Balance	Matrix element
Other (P, S)	< 0.03 each	Impurity limits

## Specification Tooltective 6Nhss Mig & Tig Welding Wire

Specification	Details
Product Name	Tooltective 6Nhss Mig & Tig
Manufacturer / Supplier	Metals And Welding Specialities
UNS Number	UNS N08367
ASTM Grade	ASTM AL-6XN
Universal Standard Name	Alloy 6HN
Product Form	Welding wire / filler metal for MIG & TIG applications (coils, spools)
Welding Processes	MIG (GMAW) and TIG (GTAW)
Common Diameters (typical)	Typical supply range 0.8 mm – 1.6 mm (metric) / 0.030" – 0.062" (imperial); custom sizes available on request
Shielding Gas (recommended)	Pure argon for TIG; argon or argon-based blends for MIG (consult welding procedure for specific joint and automation needs)
Key Alloying Elements	Nickel (Ni), Chromium (Cr), Molybdenum (Mo), Nitrogen (N), Iron (Fe) — engineered for elevated corrosion resistance and mechanical stability
Corrosion Resistance	Outstanding resistance to pitting, crevice corrosion and chloride stress-corrosion cracking; suitable for aggressive chemical and marine environments
Mechanical Characteristics	Designed to provide high strength and good ductility in welded joints; predictable arc stability and smooth bead profile for precision fabrication
Typical Applications	Offshore and marine structures, desalination equipment, chemical process plants, heat exchangers, pressure vessels and power generation components
Packaging	Coils and spools, vacuum-sealed or moisture-controlled packaging options for long-term storage; custom packaging available
Quality & Testing	Manufactured to meet UNS N08367 / ASTM AL-6XN requirements with routine quality checks for chemical composition, dimensional tolerances and weldability; traceability provided
Storage & Handling	Store in a dry, temperature-controlled area; preserve original packaging until use; handle to avoid contamination and mechanical damage
Compatibility	Recommended as filler for super-austenitic stainless steels and nickel-alloy base metals where AL-6XN / UNS N08367 compatibility is required
Certifications & Compliance	Supplied in conformance with UNS and ASTM identifiers; available with material test reports and certification on request to support ASME/AWS fabrication practices
Notes / Recommendations	For welding procedures, prequalification and exact chemical/mechanical property data please consult Metals And Welding Specialities' technical datasheet and welding engineers to ensure optimal parameters for joint design and service conditions.

## Equivalent Grade Of Tooltective 6Nhss Mig & Tig Welding Wire

Class	UNS	Oxford Alloys	BOHLER
<b>Tooltective 6Nhss Mig &amp; Tig Welding Wire</b>	<b>UNS N08367</b>	<b>Oxford Alloy AL-6XN</b>	<b>BÖHLER AWS ERNiCrMo-10</b>

## Tooltectic 6Nhss Mig & Tig Welding Wire Parameters

Diameter		Process	Volt	Amps	Shielding Gas
in	(mm)				
1/16	1.6	GTAW	16	180	100% Argon
3/32	2.4	GTAW	17	190	100% Argon
1/8	3.2	GTAW	19	205	100% Argon

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