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TIG FILLER WIRE SELECTION CHART

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CARBON & LOW ALLOY STEELS

Base Material	AWS Class	Common Rod	Key Features
Mild Steel (General)	A5.18	ER70S-2	Triple deoxidized; best for root passes and dirty steel.
Mild Steel (High Silicon)	A5.18	ER70S-6	High fluidity; superior wetting for clean shop work.
4130 Chromoly	A5.28	ER80S-D2	High strength for aerospace and automotive tubing.
Weathering Steel (Corten)	A5.28	ER80S-W	Matches atmospheric corrosion/color of Corten panels.

STAINLESS STEELS

Base Material	AWS Class	Common Rod	Key Features
304 / 304L	A5.9	ER308L	"L" for Low Carbon prevents intergranular corrosion.
316 / 316L	A5.9	ER319L	Includes Molybdenum for marine/acid resistance.
Dissimilar (Steel to SS)	A5.9	ER309L	High Cr/Ni to prevent cracking in transition joints.
Duplex 2205	A5.9	ER2209	Maintains 50/50 Ferrite-Austenite phase balance.

ALUMINUM ALLOYS

Base Material	AWS Class	Common Rod	Key Features
6061 / 6XXX Series	A5.10	ER4043	5% Silicon; easy to use; general purpose.
5052 / 5XXX Series	A5.10	ER5356	5% Magnesium; stronger; best for anodizing.

EXOTICS & CAST IRON



Cast Iron	A5.15	ERNiFe-CI	Nickel 55; prevents cracking in grey/ductile iron.
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Ensure all welding consumables are verified against the specific Welding Procedure Specification (WPS).

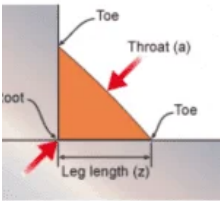
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