

HF4

TIG/GTAW wire for tool steels

Product name	HF4
Classification EN ISO	14700: SFe3
Material No.	1.2343
Classification AWS	A5.21: ~ERFe8.
Approvals	-
Applications	TIG/GTAW wire for the surfacing, repair or production of new hot working tools. Suitable for operating temperatures up to ~550°C. Exhibits excellent combination of toughness, thermal stability, thermal shock resistance and thermal conductivity. Deposits can only be ground. Typical applications will include: hot shears, continuous casting rolls, die casting moulds, plastic processing screws, forging dies, mandrels, extrusion tools, hot shear blades.
Base materials	AISI: H11. UNS: T20811. EN ISO 4957: X37CrMoV5-1 (1.2343). Similar hot work tool steels. Surfacing wide range of mild, CMn, low alloy, engineering steels etc.
Typical analysis of wire, weight %	C: 0.38 Si: 1.00 Mn: 0.40 Cr: 5.00 Mo: 1.10 V: 0.45
Typical heat treatment ⁽¹⁾	Soft annealed or tempered tools can be welded with appropriate precautions. After welding slow cool to ~80°C and then temper, or heat treat as required. For small repairs and surfacing of other low alloy steels it may be possible to relax the welding procedure requirements. Preheat: ~350°C (possibly lower when surfacing low alloy steels). PWHT: ~550°C (if required).
Mechanical properties of weld deposit ⁽²⁾	Hardness: 540-630HV 500-600HB 52-57HRC
Other products	-

Notes (1) Application codes and project specifications should always be referred to for specific requirements.
(2) Actual mechanical properties will be dependent on specific welding procedure (including shielding gas, flux, PWHT etc) and should always be confirmed by approval of an appropriate welding procedure.