CEWELD®

Dur 25 Tig

CATEGORY	GMAW-GTAW Solid wires
TYPE	Cobalt based Tig filler metal for CoCrWNi deposits.
APPLICATIONS	Dur 25 combines properties which make it suitable for a number of component applications in the aerospace industry, including parts in established military and commercial gas turbine engines. In modern engines, it has largely been replaced by newer materials such as 188 alloy, and, most recently, 230® alloy, which possess improved properties. Another area of significant usage for Dur 25 is as a bearing material, for both balls and races.
PROPERTIES	Dur 25 (UNS R30605) is a cobalt-nickel- chromium-tungsten alloy that combines excellent high-temperature strength with good resistance to oxidizing environments up to 1800°F (980°C) for prolonged exposures, and excellent resistance to sulfidation. It can be fabricated and formed by conventional techniques, and has been used for cast components. Other attractive features include excellent resistance to metal galling.
CLASSIFICATION	AWS A 5.21: no standard AMS: 5796 UNS R30605 EN ISO 14700: no standard
SUITABLE FOR	Wear problems at high temperatures in case high strength is required.
WELDING POSITIONS:	

ALL WELD METAL ANALYSIS % (NOMINAL)

C	Ni	Cr	W	Mo	Fe	Co	Mn	Si
0.1	10	20	15	<1	<3	Bal. (51)	1.5	<0.4

MECHANICAL PROPERTIES (AS WELDED TRANSVERSE)

Working temperature	$R_{P0,2}$ (N/mm^2)	Rm (N/mm^2)	A5 (%)	Impact Energy (J) ISO-V 20°C	-40°C	-60°C	Hardness HRc / HV
RT (20°C)	499	925	36.5				

AW: as welded

WELDING PARAMETERS / PACKING

Welding Parameters		Voltage	Packing (kg)
D (mm)	Current (A) DC-	(V)	single
1.6	100-140	11-14	4.54
2.4	120-160	11-14	4.54

REDRYING TEMPERATURE	not required
GAS ACC EN ISO 14175:	I1