

Dur R (Ni)

CATEGORY Brazing

TYPE Flexible Nickel based cord filled with tungsten carbides for hardfacing.

APPLICATIONS Dur R (Ni) offers the highest available wear resistance of all hardfacing alloys in most applications. The deposit offers excellent corrosion resistance combined with tungsten carbides for long life span in extreme applications.

PROPERTIES Dur R (Ni) is an extruded oxy-acetylene rod, a newly designed hard-surfacing product consisting of spherical cast tungsten carbide and a Ni-based alloy. Crushed cast carbide will guaranty a long life. Furthermore the Ni-based alloy provides an excellent corrosion resistance Dur R (Ni) has excellent flow and wetting characteristics at low working temperature of around 1050 °C and the deposition rate is 20-30% higher than with comparable tube metal. It is easy to use and inexperienced welders will have no difficulties to produce smooth deposits without cracks. Multi-layer deposits are possible and worn parts can be rebuild without removing the old material. The surface should be free from fats, oil, rust and other foreign matters. Use a larger tip than is generally recommended for same diameter mild steel. Use slight excess acetylene feather. The deposit is not mashinable or forgeable. Only grinding with diamond tools is possible. Dur R (Ni) is available as a 500 mm flexible rod or endless on coils.

CLASSIFICATION

AWS	5.21: no class
EN ISO	14700: T Ni20
DIN	8555: G-21-UM-50 CG

SUITABLE FOR Dur R (Ni) can be applied on all sorts of steels except on cast iron or Mn-steel. The main applications are hardfacing and rebuilding of stabilisers and other oilfield tools where maximum protection is required. Also for augers, impellers, mixer plates in the brick and clay industry and on decanter screws in the food and chemical industry where corrosion resistance is needed.

WELDING POSITIONS:



Ni + Cr + B + Si (Matrix)	Crushed tungsten carbides (WC2)
Rem	65%

REINES SCHWEISSGUT ERGEBNISSE

Heat Treatment	Rp0,2 (N/mm ²)	Rm (N/mm ²)	A5 (%)	Impact Energy (J) ISO-V		Matrix HRc	Carbides HV ⁰¹
				-20°C	-40°C		
						42-45	2600

SIZES / PACKING

D (mm)	available sizes		Grain size um	Packing
	Rod length (mm)	spooled wire		
5.0	500	endless	30-75	20
6.0	500	endless	30-75	20
8.0	500	endless	30-75	20

REDRYING TEMPERATURE not required