

Technical data sheet <small>EN110225GB</small>	Cored welding wire ROBODUR K 600	
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CLASSIFICATION

EN 14700: T Fe2

DESCRIPTION

- Seamless high fill copper coated tubular wire for semi-automatic gas shielded hardfacing
- Unique welder appeal
- Deposition rate increased by up to 20% when compared to solid wire
- Martensitic weld metal contains finely dispersed hard carbides ensuring an optimal balance between abrasion, friction and impact resistance
- Wire does not pick up moisture, the wire feeding properties are excellent
- Designed for welding in horizontal, horizontal-vertical and vertical-up positions
- Abrasion resistance is maintained at service temperatures up to 450°C
- Also available without copper coating - our ROBODUR F range

APPLICATIONS

ROBODUR K 600 is used for hardfacing components that must combine resistance both to abrasion and to moderate impact

Examples: Bucket teeth, bucket lips, bulldozer blades, crusher jaws, scraper blades, chutes, pump housings, conveyor screws, slide plates, gear teeth, crusher hammers, drilling bits, ploughshares, reamers etc.

TYPICAL ALL-WELD METAL ANALYSIS

C	Mn	Si	Cr	Mo
0.5	1.2	0.7	6	0.7

Microstructure: martensite

TYPICAL ALL-WELD METAL MECHANICAL PROPERTIES

Current type	Hardness - First layer	Hardness - Third layer
DC+	52 – 55 HRc	54 – 57 HRc
DC-	55 – 57 HRc	57 – 60 HRc

Peak hardness in the range 50- 62 HRc may be achieved in three layers. Direct polarity negative reduces dilution and favours higher hardness.

Preheat will be determined by the application and whether micro cracking in the deposit is acceptable. According to the base material preheating in the range 150°C - 300°C may be necessary.

CONDITIONS OF USE

Current type	Shielding gas	
DC-, DC+ or pulsed	EN ISO 14175	M12: Ar + 0.5 – 5 % CO ₂ with or without Helium
		M20: Ar + 5 – 15 % CO ₂
		M21: Ar + 15 – 25 % CO ₂

OPERATING CONDITIONS

Diameter [mm]	Intensity [A]	Voltage [V]	Stick-out	Gas flow rate
1.2	110 - 300	16 - 32	12 - 25 mm	10 - 20 l/min.
1.6	130 - 350	16 - 32	12 - 25 mm	10 - 20 l/min.

Recovery: 98 %

WELDING POSITIONS

ROBODUR K 600 is primarily used in the flat and horizontal-vertical positions. However, welds in other positions are also possible using the short-circuiting or pulsed arc modes of transfer.

PACKAGING

Diameter	1.2 – 1.6 mm
	EN ISO 544 – ASME II C SFA-5.2 M
Spool type	BS 300
Weight	15 kg

Other packaging and other diameters: please consult us

Welding products and techniques evolve constantly. All descriptions, illustrations and properties given in this data sheet are subject to change without notice and can only be considered as suitable for general guidance. This document is intended to help the user make the correct choice of product. It is his responsibility to assess its suitability for his intended application.