


<b>Technical data sheet</b>  300914	<p style="text-align: center;">Cored welding wire</p> <h1 style="text-align: center;">ROBODUR K 600-G</h1>	 <b>Welding Alloys Group</b>
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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

## APPLICATIONS

ROBODUR K 600-G is used for hardsurfacing 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 50HRc - 62HRc 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.

## SHIELDING GAS

EN ISO 14175 :  
M12 Ar + 0.5 % < CO<sub>2</sub> ≤ 2.5 with or without Helium  
M20 (Ar + 5 - ≤ 15% CO<sub>2</sub>)  
M21 (Ar + 15 - 25% CO<sub>2</sub>)

## OPERATING CONDITIONS

Diameter [mm]	Current type	Intensity [A]	Voltage [V]	Stick-out	Gas flow
1.0	DC (-), DC(+) or pulsed	90 - 250	16 - 32	12 - 25 mm	10 - 20 l/min.
1.2	DC (-), DC(+) or pulsed	110 - 300	16 - 32	12 - 25 mm	10 - 20 l/min.
1.6	DC (-), DC(+) or pulsed	130 - 350	16 - 32	12 - 25 mm	10 - 20 l/min.

Recovery: 98 %

## WELDING POSITIONS

ROBODUR K 600-G 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	1.0 mm	1.2 mm	1.6 mm
	EN ISO 544 – ASME II C SFA-5.2 M		
Spool type	BS300		
Weight	15 kg		

Other packaging: 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.