



ELBRAS Eletrodos do Brasil Ltda.

ELBRAS is a Brazilian company, having as its shareholders and managers ex-directors, ex-managers and ex-technicians of one of the major manufacturers of electrical arc welding products in the world and from where also the major part of its operational staff came. These professionals – after 30 years of experience in manufacturing and commercializing of coated stick electrodes and other products within the arc welding range and with access to today's principal technologies worldwide in arc welding - decided to join in a new company, aiming to offer to the market high quality welding products and services. From the very beginning, the company's strategy has been to occupy a distinguished position in the market, as a high quality supplier.

The ELBRAS plant with head-office is located in the CINCO (Industrial Center of Contagem), in the town of Contagem (neighboring Belo Horizonte), Minas Gerais State, in an area of 20.000 m², presently with an installed capacity of 700 tons stick electrodes / month in one shift. A branch office is installed in São Paulo to attend that important market.



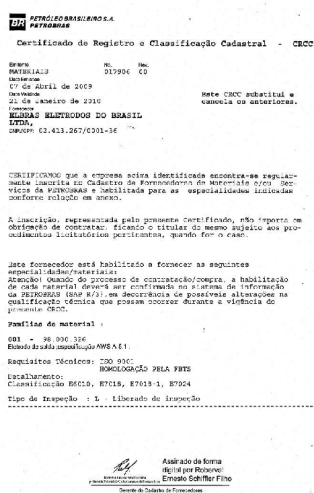
Aware of its responsibility, ELBRAS has implemented and maintains a Quality Management System, which fulfills with the requirements of the ISO 9001:2000 standards, for which the company is duly certified since February 2004 (Reg. N° IT-34094) and also, for its principal products, the company has obtained the homologation by the FBTS – Fundação Brasileira para Tecnologia da Soldagem (the Brazilian Foundation of Welding Technology), requirement to qualify as a supplier to the petroleum industry (refineries and off shore). In the beginning of 2009, the PETROBRÁS granted to ELBRAS the CRCC – Certificado de Registro de Classificação Cadastral – which allows the company to commercialize its products in all the PETROBRÁS working places in Brazil and abroad, WITHOUT ANY FURTHER TESTING REQUIREMENTS OR EVEN PRIOR INSPECTION.

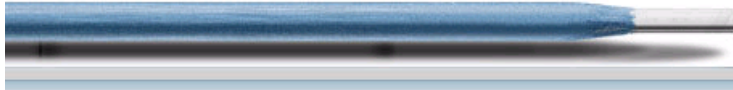


Elbras Eletrodos

Fábrica Matriz
Rua Emilia Silva Freitas, 800 - Cinco
Contagem - MG - 32341-500
Tel: +55(31)3391-5250
Fax: +55(31)3911-6822

Filial - São Paulo(SP)
Rua Anton Philips, 01 - Vila Hermínia
Guarulhos - SP - 07030-010
Tel: +55(11)64222753
Fax: +55(31)6422-3671





Further to the continuous focusing on technical improvements and innovations in the proper product range, ELBRAS now packs and delivers the stick electrodes in practical plastic cases, thus making handling and transportation easier and more resistant - and also distinguishing its high quality products on the market. Further, the electrodes of low hydrogen classifications – requiring a minimum moisture level – are being packed and delivered in vacuum closed parcels within the plastic cases.



In 2008 ELBRAS and the UFMG (Federal University of Minas Gerais) celebrated a technological agreement to develop a completely impermeable electrode, the E7018. The obtained technical results were fantastic and the same was launched at the fair Rio Oil & Gas 2010, with a great success.

In the month of May, 2011, the electrode was presented in the company's stand at the FEIMAFE-Feira Máquinas e Ferramentas (Machine & Tool Fair) in São Paulo, where the electrode was shown physically taken out of an "aquarium" with water and being welded in a cabin, without presenting any welding defects.



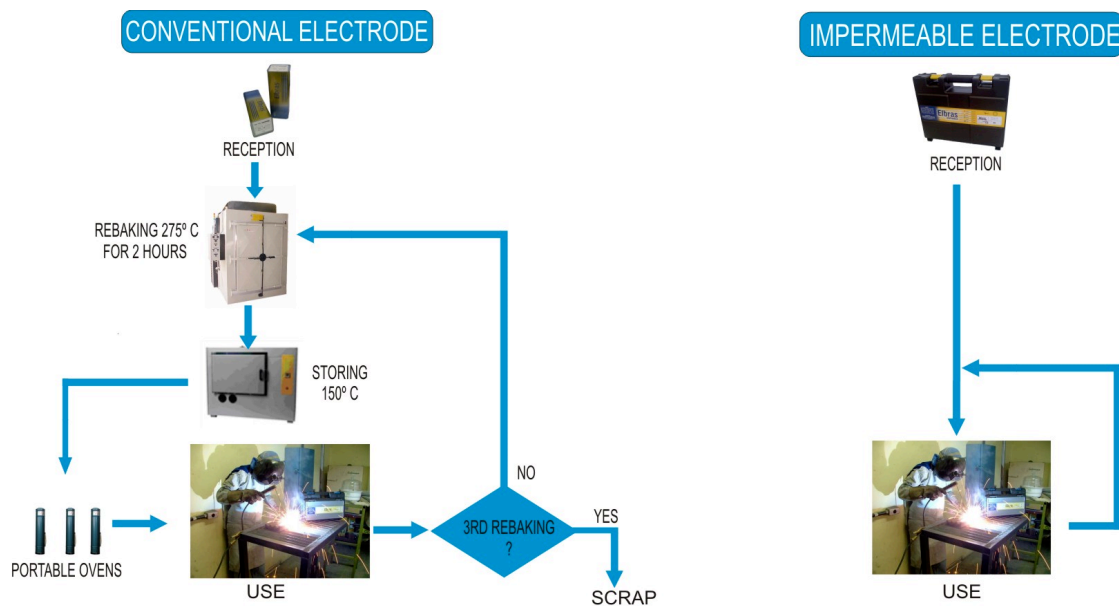
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This product DOES NOT REQUIRE PRE-DRYING OR MAINTENANCE IN OVEN, and is expected to revolutionize the concepts of stocking this class of electrodes, being presently tested at the CENPES-Centro de Pesquisas da Petrobras (Research Center of Petrobras) and at the stage of certification.

In 2011 the company is carrying through the first sales and in 2012 we intend to initiate the development of the same technology for the other families (low alloy, stainless, etc.), as the initial tests have shown that that production is perfectly possible.



All of this, without lose the technical characteristics, inherent from each electrode family!!!

IMPERMEABLE ELBRAS ELECTRODE MICROESTRUCTURE



DIFFUSIBLE HYDROGEN	CHEMICAL ANALYSIS			TENSILE STRENGT (MPa)	YIELD STRENGTH (MPa)	ELONGATION (%)	CHARPY V - 45°C (J)	WELDING POSITIONS
	C	Si	Mn					
1,1 to 1,8 ml/100gr	0,07	0,60	1,20	677,9	554,3	29,1	52	

Contagem / MG, May 2011



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