

## MANUFACTURERS OF A DIVERSE RANGE OF ADVANCED WELDING CONSUMABLES

SECTION 7

WI-0304 DS90 NCM-625 Rev. 2, Date 19.08.2013

NCM-625	DEPOSITING A NICKEL BASED ALLOY											7A SH NO. <b>90</b>	EET
SPECIFICATION	AWS A5.11				BS EN ISO			172	JIS Z 3			3224	
CLASSIFICATION	ENiCrMo-3				E Ni 66				DNiCrMo-3				
PRODUCT DESCRIPTION	The chemically basic flux is extruded onto a high purity nickel chromium core wire. The flux contains the remaining alloying elements together with alloys for deoxidation and grain refinement.  The blend of silicates used during electrode production ensure both coating strength and resistance to subsequent moisture absorption.												
WELDING FEATURES OF THE ELECTRODE	The electrode is suitable for use on both AC and DC+ and welds with great arc stability and thus control of the molten weld pool. Slag detachability is good.  The weld beads are bright and evenly rippled with fillet welds slightly convex.  Strike and re-strike should be made with the established back step technique.												
APPLICATIONS AND MATERIALS TO BE WELDED	Welding the following materials:     ASTM / ASME UNS N06625 A494 Cu 6Mo cast.  Proprietary Alloys:     INCONEL 625 (Special Metals),     NICROFER 6020hMo and 6022hMo (Krupp VDM).  May also be used for superaustenitic alloys such as:     254SMo (Avesta), Sanicro 28 (Sandvick), Nicrofer 3127LC (Krupp VDM),     Incolloy 825 (Special Metals), Nicrofer 4221 (Krupp VDM),     904L (Uddelholm) and similar.  Also for 9% Ni cryogenic steels and dissimilar welds.												
WELD METAL ANALYSIS COMPOSITION % BY Wt.	7	C	Mn	Si	S	P	Cr	-	Mo	Nb	Fe	Cu	Co
	MIN	_	_	_	-	_	20			3.15	_	_	-
	MAX	0.1	1.0	0.75	0.02	0.03	23			4.15	7.0	0.5	0.12
	TYPICAL	0.04	0.7	0.6	0.01	0.01	22			3.5	5.0	0.03	0.04
WELD METAL PROPERTIES (ALL WELD METAL)	PROPERTY Tensile strength 0.2% Proof stress Elongation on 4d Reduction of Area (RA) Impact energy -196 °C			UNITS N/mm² N/mm² % % J		MINIMUM 760 - 30 -		TYPICAL 820 490 35 32 30			OTHERS  HV AS WELDED  250  HV WORK HARDENED  450		
WELDING AMPERAGE DCEP	Ø (mm) 2.6			•	3.2			4.0					
	MIN 60 MAX 100				90 130			130 180					
OTHER DATA	Electrodes that have become damp should be re-dried at 180 °C for 1 hour.												
RELATED PRODUCTS	Please contact our Technical Department for detail.												