



D2.5 – Deliver a Coil of K44M steel for coating at SMT

PROJECT INFORMATION

GRANT AGREEMENT NUMBER	826323							
PROJECT FULL TITLE	Low Cost Interconnects with highly improved							
	Contact Strength for SOC Applications							
PROJECT ACRONYM	LOWCOST-IC							
FUNDING SCHEME	FCH-JU2							
START DATE OF THE PROJECT	1/1-2019							
DURATION	36 months							
CALL IDENTIFIER	H2020-JTI-FCH-2018-1							
PROJECT WEBSITE	www.lowcost-ic.eu							

DELIVERABLE INFORMATION

WP NO.	2
WP LEADER	Jan Froitzheim
CONTRIBUTING PARTNERS	Aperam
NATURE	Samples
AUTHORS	Pierre-Olivier Santacreu
CONTRIBUTORS	
CONTRACTUAL DEADLINE	12-2019
DELIVERY DATE TO EC	03-2020

DISSEMINATION LEVEL

PU	Public	Х
PP	Restricted to other programme participants (incl. Commission Services)	
RE	Restricted to a group specified by the consortium (incl. Commission Services)	
CO	Confidential, only for the members of the consortium (incl. Commission Services)	



1 Documentation of delivery

Following coil of metal have been sent for SMT:

• 1 coil (1 ton) of K44M, 400mm width 0.5 mm thickness DOCUMENTATION OF THE SHIPMENT AND TEST REPORT IN ANNEX



~~					TEST REPORT BS EN 10204/2.2											6316-01 V0	1 AD3	
					RELEVE DE CONTROLE NF EN 10204/2.2 WERKSZEUGNIS DIN EN 10204/2.2													
aperam ;					SZEUG	NIS DIN E	IN 10204/							A02				
	U																	
Aneram - S	Stainless Franc																	
Aperam - Stainless France Aperam Gueugnon																		
71130 Gue FRANCE																		
FRANCE																		
			AD	1 ISO 9001	2015 - 1	ATF 16949:2	016 - ISO 1	4001:20	15					Z05				
Manufactu	urer's works or	der nur	mber	<u> </u>				Purch	aser and/or o	onsig	nee				aser's order	number		
	mmande usine p	products	rice						et/ou destinat						commande ci			
	ngunmer							Bestel	ler und/oder I	impfac	nger				anbestellnum	Der		
80503920	80563920 /01-42347/1 ADB						APEI	RAM STAINL	ESS F	RANCE	2		cde d	ev ali saad		A07		
Product - Produit - Erzeugnis							6 па	André Campi						mer article i	umber			
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	KALTGEWALZTES BAND							FRAI		~				Artiss	munner des	Number		
							801							A06			ADS	
Steel desig	ignation		80	2 Fini	:h	Steelmakin	process							C70 Prod	act delivery o	ondition		
Designation				Présent					Stahlherstellu						e livraison du		ferrustand	
Stahlbezeic	chnung			Ausfuel					ce - VOD/AO (AOD - Coule			is cast	ng					
EN 10088-2	2/14-1.4521			28					a - VOD/AOD			mlage		Anne Recui		87	0 C MINI	
					H									B03 Geglu	-			
						Any supple			- Zusätzliche .	4-6-00	lonnar				d Air			
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																	Z06	
Identificati	ion of the prod on du produit - l	uct			807		-		Dimensions						of pieces		808	
MELTED	IN BELGIUM	MAD	E IN FRAI	NCE					ons - Abmess	-					eces - Stuecka	201	1	
		-				ichness		Width		B10	Length		B1					
Coil n. N.Bobine -	Pro d Ma		atu. Coulée - Sci		Ľр	aisseur - Sta		-	ur - Breite		Longue	aur - L	aenge	Net weig	ht - netto Gewi	B13	046 KGS	
		20.3			0,000 1111 100,00 1111								Poids be	- nemo Gewi	-	040 1205		
9	938972		424	361														
					CHE	MICAL AN	ALYSIS -	ANAL	ARE CHIVE	QUE .	- CHEN	IISCI	IE ZUSA	MMENSE	TZUNG			
		С	Si	Mn	Ni	Cr	Mo	Ti	N	S		P	Nb					
	Exige %mini					17,00	1,800											
Anforderun	ng. %maxi	0,025	1,00	1,00		20,00	2,500	0,800	0,030	0,013	50 0,0	40						
	Cast Analysis	0,015	0,40	0,30		18,96	1,865	0,011	0,019	0,001	17 0,0	24	0,586					
	Analyse coulee																	
Anz	alyse Schmelze	c	71 C7	2 C73	c	74 C75	C76	0	77 C78		C79	C80	CS	C82	C83	C84	C85 C86	
	aterial identifica																D52	
	arification de la c ungpruefung wu				e:OK													
Verwechstu	angprostang wa	nde ditti	cugoruourt	. OR	K C04 C93													
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,	(- <i>y</i>					ture ambiants								Test temper	atura (°C) -		C03	
Dire	ection (2)			roof streng	-	_			Elongation	after f	rachura	Hard	_	•		Tensile str.		
			Limite d'é			Tensile Strength Resistance à la traction			Allongemen			Dure			ld or proof strength uite d'élasticité		Resist MPa Allongement	
	Required Exigo		Dehngrens	a 1	(Pa	Zugfestigkeit		MPa	Bruchdehnur				te I	Dehngrenze	MPa	Zugfestigkeit	Bruchdehnung	
	Anforderung		Rp0.24	6 1	Rp1%		Rm			50	ham			Rp0.2%	Rp1%	Rm		
		mini	320				420				20							
		maxi				_	640											
T		tsined Obtam	349				563			:	29							
		bnisse						C12	C13		C15		C31	C16	C17	C18	C19	
		dnisse		C11	C	14												
				C11		14 orrosion test	:									-		
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Ke	Erge Impact strengt Essai de résili	h test ence keitstes	t C44	C11	C Tes	orrosion test at de corrosio	10		0.50									
Ke	Erge Impact strengt Essai de résili erbschlagzaehig	h test ence keitstes	C44	C11	C Tes	orrosion test at de corrosio	10	DS1	C50		C51		052	C53		C55		
	Erge Impact strengt Essai de résili erbschlagzæbig C40 u(*e)	h test ence keitstes			C Ter K	orrosion test at de corrosio orrosionstes	n t		Internal clean	liness	C51			053 A:	B:			
Location	Erge Impact strengt Essai de résili erbschlagzaehig	h test ence keitstes e (1)	C44	The	C Ter K	orrosian test at de corrosia arrosionstes is in accord	n t	the ord	Internal clean		C51		Organi	C53 A: sation in sp	B:	C: I		
Location Emplaceme Lage des Pr	Erge Impact strengt Essai de resili cerbschlagzsehig C40 ((*) of the sample wat de l'echantili robanabschnitte	h test ence keitstes e (1) on	C44	The La fo	C Ter K delivery uniture	orrosian test at de corrosia arrosionstes is in accord	ance with	the ord nces de	Internal clean ier la commande		C51	201	Organi Organis	C53 A: sation in sp	B: ection rvice contrôle	C: I		
Location Emplaceme Lage des Pr 1. Front	Ergs Impact strangt Essai de resili erbschlagzsehig C40 (*e) of the sample set de l'echantili :- Debut - Anfar	h test ence keitstes e (1) on	C44	The La fo Die I Pack	C Tes K delivery uniture ieferung ing list	orrosion test et de corrosio orrosionstest is in accord est conform entspricht de	ance with	the ord nces de edingu	Internal clean ler la commande agen	•		201	Organi Organis Ueberw	O53 A: sation insp me et/ou se achungs abt	B: ection rvice contrôle sihing	C: I): C57	
Location Emplaceme Lage des Pr 1. Front 2. Back	Erge Impact strengt Essai de resili cerbschlagzsehig C40 ((*) of the sample wat de l'echantili robanabschnitte	h test ence keitstes e (1) on s	C44	The c La fo Die b Pack Avis	C Ter K delivery uniture seferung ing list d'expédi	orrosion test it de corrosio arrosionstest is in accord est conform entspricht d	ance with	the ord nces de edingu	Internal clean ier la commande	•			Organi Organis Ueberw Cu	C53 A: sation in sp me et/ou se	B: ection rvice contrôle sihing	C: I): C57	
Location Emplaceme Lage des Pr 1. Front 2. Back 3. Middl	Ergs Impact strangt Essai de realis orbschidgzsehig C40 (*e) of the sampl- set de l'echantil tobanabschnitte - Debut - Anfar - Fin - Ende lle - Milien - Mi	h test ence keitstes e (1) on s s te	C44 C42	The o La fo Die b Pack Avis C01 Liefe	C Ter K delivery writure isfering ing list despédi rschein)	orrosion test it de corrosio arrosionstest is in accord est conform entspricht d ition Jummer	in t lance with e aux exige an Bestellb	the ord nces de edingut 200	Internal clean ler la commande agen 213G0156	• 4-10]		Z01 A10	Organi Organis Uoberw Cu	C53 A: sation insp me et/ou se achungsabt stomer Q	B: ection rvice contrôle sihing	C: I	A05	
Location (Emplaceme Lage det Pr 1. Front 2. Back - 3. Middl Direction	Ergs Impact strangt Essai de resili erbschlagzsehig C40 (°e) of the sample set de 'echantil trobenabschnitte - Debut - Anfra - Fin - Ende le - Milien - Mi of the test pi	h test ence keitstes (1) on s s s te (1)	C44 C42	The c La fo Dis l Pack Avis C01 Lisfe Mari	C Ter K delivery wraiture isforung ing list d'orpédi rschein) king, ins	orrosion test it de corrosio orrosionstest is in accord est conform entspricht d ition ition ition summer	n ! lance with e aux exige an Bestellb measuren	the ord nces de edingur 200	Internal clean ler la commande agen 213G0156 rithout objec	• 4-10] tion			Organi Organis Uoberw Cu	O53 A: sation insp me et/ou se achungs abt	B: ection rvice contrôle sihing	C: E	A05	
Location Emplaceme Lage det Pr 1. Front 2. Back 3. Middl Direction Orientation Probenricht	Ergs Impact strangt Essai de réali arbschlagzsehig C40 (*e) of the sample end de Vechantill robansbschnitte - Debut - Anfan - Fin - Ende Be - Miliou - Mir of the test pin des eprouvetted tung	h test ence keitstes e (1) on s kg te eces (2	C44 C42	The La fo Die h Pack Avis C01 Liefe Mari Cont Prust	C Ten K delivery urniture ieferung ing list d'expédi rschein) ting, ins role de n iung der	orrosion test at de corrosionstest is in accord est conform entspricht d fiton fummer pection and Stempelung,	in t lance with a aux exigu an Bestellb l measuren spect et de des Oberff	the ord nces de edingur 200 nent : v diment	Internal clean ler la commande agen 213G0156	4-10] tion			Organi Organis Ueberw Cu	C53 A: sation insp me et'ou se achungsabt stomer Q 02/2020	B: ection rvice contrôle sihing	C: E	A05	
Location Emplaceme Lage des Pr 1. Front 2. Back 3. Middl Direction Orientation Probemicht T. Transv	Ergs Essai de réalifi lerbschlagzashig C40 ((*e) of the sampl- wat de l'achantil trobanabschnitte - Debut - Anfre - Fin - Ende Be - Milieu - Mir 1 of the test pi t des eprouvettes	h tost ence keitstes keitstes e (1) on s ig te keces (2	C44 C42	The La fo Die h Pack Avis C01 Liefe Mari Cont Prust	C Ten K delivery urniture ieferung ing list d'expédi rschein) ting, ins role de n iung der	orrosion test at de corrosio orrosionstest is in accord est conform entspricht d ition pection and arquage, d'a	in t lance with a aux exigu an Bestellb l measuren spect et de des Oberff	the ord nces de edingur 200 nent : v diment	Internal clean ler la commanda agen 213G0156 rithout objec ions : satisfai	4-10] tion			Organi Organis Uoberw Cu	C53 A: sation insp me et/ou se achungsabt stomer Q 02/2020 pector	B: ection rvice contrôle sihing	C: E	A05	

Acknowledgment



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