TUBÂCEX		Qualification		QTR. No.: 1				
GROUP	1	NORSOK I	Rev. I	Rev. No.:9				
Manufacturer name/address/ Web page:	Tres Cruce	RIA DE ALAVA, S.A.U. (ACERALAVA) Cruces, 8 01400 Llodio (Alava) Spain			PLANT: Polígono de Saracho s/n 01470 Amurrio (Alava) Spain			
Reference standard		M-650 EDITION 4 9, A276, A182	4					
Material designation and MDS No.:	BARS (	JNS S 31803 / U		D47-rev. 6				
Manufacturing summary doc. No.:	MS 31803 HFR- HOLD- pending new qualification tests     MS 31803 HF					Rev. No.: 5 Rev. No.: 5 Rev. No.:3		
Products and manufacturing process(es):	2. FORGE	OLLED BARS HO ED & ROLLED BA ED BARS	RS- HOLD- per	new qualification	on tests dification tests			
Mandatory conditions and sub-contractors:	ry Heat treatment carried out in Guinea Furnace for solution annealing Acerálava.Heat treatment of UNS S31803 bar according to heat treatment of UNS S31803 bar							
	Qual.testin	on testing 636375 ng 563327, 55800	07 & 592257 ar	e included as	historical docu	ımentation,		
Expiry date	hold pendi Heat treatr TTI-ACER 22Cr and tensile, im	ng new qualificat ment witnessed b ALAVA do have 25Cr reference pact, flattening a	ion tests. by SFF (report \ in house testir standards. L	/HTA-01) and and aggregation of the design o	cover all the te	er (VHTA-02). esting required b		
Expiry date	hold pendi Heat treatr TTI-ACER 22Cr and tensile, im	ng new qualificat ment witnessed b ALAVA do have 25Cr reference pact, flattening a	ion tests. by SFF (report \ in house testir standards. L and hardness te	/HTA-01) and facilities to aboratory is esting.	Lloyd's Regist cover all the to ISO 17025:20	er (VHTA-02). esting required b 17 accredited fo		
Products and manufacturing	hold pendi Heat treatr TTI-ACER 22Cr and tensile, im	ng new qualificat ment witnessed b ALAVA do have 25Cr reference pact, flattening a	ion tests. by SFF (report vin house testing standards. Lind hardness testing testing)  Qualified  Tested Thickness	/HTA-01) and facilities to aboratory is esting.	Lloyd's Regist cover all the to ISO 17025:20	er (VHTA-02). esting required b 17 accredited fo		
Products and	hold pendi Heat treatr TTI-ACER 22Cr and tensile, im	ng new qualificat ment witnessed b ALAVA do have 25Cr reference pact, flattening a	ion tests. by SFF (report vin house testing standards. Lind hardness te	/HTA-01) and g facilities to aboratory is esting.  Thickness  Qualified thickness	Lloyd's Regist cover all the te ISO 17025:20 s and Weig Test piece weight	er (VHTA-02). esting required to the second of the second		
Products and manufacturing process(es):	hold pendi Heat treatr TTI-ACER 22Cr and tensile, im	ng new qualificat ment witnessed b ALAVA do have 25Cr reference pact, flattening a	ion tests. by SFF (report vin house testing standards. Land hardness testing testing)  Qualified  Tested  Thickness (mm)	VHTA-01) and g facilities to aboratory is esting.  Thickness  Qualified thickness (mm)	Lloyd's Regist cover all the to ISO 17025:20 s and Weig Test piece weight (kg)	er (VHTA-02). esting required to the setting requirement of the se		
Products and manufacturing process(es):	hold pendi Heat treatr TTI-ACER 22Cr and tensile, im	ng new qualificat ment witnessed by ALAVA do have 25Cr reference pact, flattening a second se	ion tests. by SFF (report vin house testing standards. Land hardness testing t	CHTA-01) and facilities to aboratory is esting.  Chickness  Qualified thickness (mm)  282	Lloyd's Regist cover all the to ISO 17025:20 s and Weig Test piece weight (kg)	er (VHTA-02). esting required to the setting requirement of the		
Products and manufacturing process(es): 4	hold pendi Heat treatr TTI-ACER 22Cr and tensile, im 28.03  Test record No.  563327 558007	ng new qualificat ment witnessed by ALAVA do have 25Cr reference pact, flattening a second se	ion tests. by SFF (report vin house testing standards. Lind hardness testing t	Chtckness  Qualified thickness (mm)  282  282	Lloyd's Regist cover all the te ISO 17025:20 s and Weig Test piece weight (kg) NA NA	er (VHTA-02). esting required by the state of the state o		
Products and manufacturing process(es): 4 2 3	hold pendi Heat treatr TTI-ACER 22Cr and tensile, im  2 8.03  Test record No.  563327 558007 592257	ng new qualificatment witnessed by ALAVA do have 25Cr reference pact, flattening a second sec	ion tests. by SFF (report vin house testing standards. Lead and hardness testing testing testing standards. Lead and hardness testing	Chickness Qualified thickness (mm) 282 282 300 330	s and Weig  Test piece weight (kg) NA NA NA NA	er (VHTA-02). esting required to the setting requirement of the		

valid for his products within the essential variables of NORSOK M-650.

pted by (company name/address):

Signature/Date: 28.05. 202/

Qualified/Accepted by (company name/address):
TSS NORWAY

Signature/Date. 18.000

ACERALAVA TUBÂCEX		QTR Qualification Test Record					C	QTR. No.: 2			
SACOP		NORSOK M-650 ED				DITION 4 Rev. No.:7					
Manufacturer name/address/ Web page: Reference		ACERIA DE ALAVA, S.A.U. (ACERALAVA) Tres Cruces, 8 01400 Llodio (Alava) Spain www.tubacex.com NORSOK M-650 EDITION 4					ono de Sa	Saracho s/n rio (Alava) Spain			
standard		ASTM A47	79, A276, A182								
Material designation and MDS No.:		BARS UNS S 32760 NORSOK M-630 edition 7 MDS D57 REV. 6									
Manufacturing summary doc. No.:		1. MS 32	2760 HR		Rev. No.: 6						
Products and manufacturing process(es):			ROLLED BARS								
Mandatory conditions and sub-contractors:		Heat treats	ment of UNS S32 T-P.001.	2760 bar accord	Guinea Furnace in Acerálava (ref. HRC-G-E-6X100). 60 bar according to heat treatment procedure 04.02-						
Other informatio		This new QTR no. 2 Rev 7., is made with the aim of suiting its content to the new Nors M630 Ed.7 requirements (following ISO 17781 Ed 2017). Only those items/processes where results are in accordance with the required in this new edition are considered for requalification.  Qual. test report 563338 was carried out for fulfillment of MDS D57 rev4 and test report 636369 was carried out for fulfillment of MDS D57 rev5. Both reports comply with MDS D57 rev6. In report 636369 low presence of intermetallic phases/precipitation is shown which do not affect material performance as proved by impact and corrosion testing. Heat treatment witnessed by SFF (report VHTA-01) and Lloyd's Register (VHTA-02).  TTI-ACERALAVA do have in house testing facilities to cover all the testing required 22%Cr and 25%Cr reference standards. The laboratory is included in the ISO 90 QA system and is ISO 17025:2017 accredited for tensile, impact, flattening a hardness testing.					se items/processes in are considered for rev4 and test report its comply with MDS ecipitation is shown corrosion testing. egister (VHTA-02). The testing required by its ded in the ISO 9001				
Expiry date			05,2026								
			ested and	Qualified 1	hickr	ness	and W	eight			
Products and manufacturing process(es):	Te	est record Test date No.		Tested Thickness (mm)	Qualii thickn (mn	ess	Test piec weight (kg)	e Qualified weight (kg)			
1	5	63338	08/11/2012	200	200	0	NA	NA			
1	6	36369	06/11/2015	230	230		NA	NA			
	Jan.	Qualification/Acceptance signatures									
Manufacturer:		Prepared by/Date:  Irene Castro May 2021			Checked by/Date:  Aitor González May 2021			May 2021			
The manufacturer and this QTR are evaluated and found to be in compliance with the requirements of NORSOK M-650 for supply of the above listed products and materials.  This acceptance does not exempt any purchaser from his responsibility to ensure that this qualification is valid for his products within the essential variables of NORSOK M-650.								s. this qualification is			
Qualified/Accepted by (company name/address):  TSS NORWAY					Signature/Date: 28. 05. 202/ INGVE STANGELAND						

Camio Forusvei 11 4831 Stavenger, Norway Ingve Stangeland

ACERALAV	Ά		QTR Qua		1 Test		QTR. No.: 3			
TUBÂCEX			NORSOK	Record M-650 ED	ITION 4	Rev. No.:3				
Manufacturer name/address/ Web page:			DE ALAVA, S.A.Ues, 8 01400 Llodi							
Reference standard		NORSOK	M-650 EDITION 79, A276, A182	4	01470 Amunio (Alava) Spain					
Material designation and MDS No.:		BARS UN NORSOK	S S 32750 M-630 edition 7	MDS D57 REV	. 6					
Manufacturing summary doc. No.:		1. MS 32	750 HR				Rev. No.:			
Products and manufacturing process(es):		1. HOT F	1. HOT ROLLED BARS							
Mandatory conditions and sub-contractors. Other information		Heat treats C000.00T	Heat treatment carried out in Guinea Furnace in Acerálava (ref. HRC-G-E-6X100). Heat treatment of UNS S32750 bar according to heat treatment procedure 04.02-C000.00TT-P.001.							
		Norsök, M items/proc are consid Qualification meets requirest at surf with rev.6. Heat treatr ACERALA 22% and 2	ered for requalification testing 55515 uirement of MDS face and ferrite of ment witnessed by VA-TTI do have 25% Cr reference	ments (following ults are in accordant on ac	g ISO 1778 Irdance with Iried out to It If MDS D57 Ins from sur VHTA-01) a Ing facilities to Iried Isolatory	1 Ed 2017). the required MDS D57 rev. 6. Statis face to centrate Lloyd's For cover all ty is included	Only those d in this new edition v 4. however material stical data for corrosion re is added to comply Register (VHTA-02), the testing required by			
Expiry date			05.2026							
			Tested and	Qualified '	hickness and Weight					
Products and manufacturing process(es):	T	est record No.	Test date	Tested Thickness (mm)	Qualified thickness (mm)					
1	,	555151	23/07/2012	282	282	NA	NA			
			Qualifica	ation/Acce	ptance s	signatur	es			
Manufacturer:		Prepared	f by/Date:		Checked by/Date:					
		Irene Castro May 2021			Aitor González May 2021					
	nce d	er and this ( NORSOK M does not exc	QTR are evaluate 1-650 for supply o	ed and found to of the above list ser from his res	be in comp ed products sponsibility t	liance with the and materia o ensure tha	he requirements of als. at this qualification is			
Qualified/Ac	cep		ompany name/ad		Signature	Date: 28.	05.2021			
TUBÂCEX										

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ACERALAVA		QTR Qualification Test					QTR. No.: 4			
TUBÂCEX		Record NORSOK M-650						Rev. No.: 2		
		ED. 4								
Manufacturer		Acer	ría de Alava.	S.A.U. (ACERALA)		Plant				
name/address/ Web page:				1400 Llodio (Alava)				ial de Saracho s/n		
vves page.		Spai				01470 Amu	ırrio (Alav	a) Spa	ain	
Reference stand	dard	WWW.tubacex.com  NORSOK M-650 EDITION 4								
Treference stant	Jaru	NORSOK M-650 EDITION 4 ASTM A479, A182, A276, B649								
Material designa	ation		S UNS S3125	A						
and MDS No.:		NOR	SOK M630 ed	7 MDS R17 REV. 6						
Manufacturing								Poi	v. No.:	
summary doc. N	lo.:	1. N	<b>VIS 31254 HF</b>					4		
Products and		150.040 1.50	HOT FORGE							
manufacturing		1. 1	IOTTONGE	D BANG						
process (es):										
Mandatory conditions and s	sub-			ried out in Guinea Fu JNS S31254 bar acc						
contractors:			0.00TT- P.001.		oranig .	io mode a odam	one proces			
Other informatio	n:			4 Rev 2., is made wit						
		M630 Ed.7 requirements. Only those items/processes where results are in accordance								
		with the required in this new edition are considered for requalification.								
			Test report 630480 carried out under M-630 ed6, MDS R17 rev5 complies with M-630 ed							
					rrosion test G48 at surface is included for at mid thickness position (T/2) in test report a g/m2. This result is for information only					
			ttending note in paragraph 10.3.3 from M-650. If Purchaser intends to use the finished ar for products including the centre of the bar, corrosion testing of the center of the bar							
			or products inc be evaluated.		ne bar,	corrosion tes	ting of the	center	or the bar	
	2.110.500									
		Heat	treatment wit	nessed by Lloyd's Re	egister	of Shipping (r	eport VHT	ΓA-02) ting re	guired by	
		TTI-ACERALAVA do have in house testing facilities to cover all the to 6Mo reference standards. The Laboratory is included in the ISO 9001								
				credited for tensile, i						
Expiry date:		2	8.05.20	26						
	_			d and Qualified Thi						
		est cord	Test date	Tested thickness		Qualified hickness	Test pie weigh	196	Qualified weight	
process(es):		lo.		(mm)		(mm)	(kg)		(kg)	
1	630	480	6/11/2015	250 as forged		0 as forged	NA		NA	
			Q	230 as machined ualification/Accepta		as machined				
Manufactur	er:	Pr	epared by/Dat			cked by/Date:				
		1 Gir			IG					
		Wie On			0.4					
		Irana Castra May 2024			Aitor Conzóloz					
Irene Castro May 2021					145 (011) 50 (010)	González			lay 2021	
The manufacture	r and th	nis QTF	R are evaluated ar	nd found to be in compliant above listed products and			f NORSOK I	N-650 fo	r supply of the	
This accepta	ance do	es not		naser from his responsibilit the essential variables of			ication is vali	d for his	products	
Qualified/A	ссер	ted i		name/address):	Signa	ature/Date:	28.05	2012		
1	50				IN	ature/Date:	11-10	10		
TSS NORWAY					1700	3/14/	GELAX	0	to	
TUBÂCEX								X		

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4031 Stavanger, Norway
Ingve Stangeland