Certificate

Quality management system for Manufacturer of Materials acc. to Directive 2014/68/EU

Certificate no.: 01 202 ROK/Q-02 0009.00

Name and address of the certificate holder:

SeAH Changwon Integrated Special Steel Corporation

147, Jeokhyeon-ro, Seongsan-gu,

Changwon-si, Gyeongsangnam-do, 51708

Republic of Korea

Herewith we certify that the material manufacturer has established and applies a Quality Management System. The system was audited according to the European Directive 2014/68/EU, Annex I, point 4.3, with regard to the materials as

listed in the scope of approval.

Test basis: QM System acc. to EN 764-5, Clause 4.2 and

AD 2000-Merkblatt W0

Audit report no.: 01 202 ROK/Q-02 0009

Scope: Manufacturing of Steel and Stainless steel rolled bars,

rods / forged products and Seamless Stainless steel tubes, see annex to certificate: 01 202 ROK/Q-02 0009, revision 24

einlang

from 09.06.2023

Manufacturing plant: see certificate holder

Validity: This certificate is valid to 2026-06-30.

Cologne, 2023-07-21

Ines Krüger-Führ





E-108a



SC0	pe:	☑ Directive 20	014/68/EU Annex	(I point 4.	.3		⊠E	N 764	l-4			⊠ AD 200	⊠ AD 2000-Merkblatt W 0			
	Certifica	ıte holder (Manufac	cturer of materials)	Manuf	ng plar	nt		Nat	tionali	y Page No.:	1					
Com	pany Name:	SeAH Changwon In	tegrated Special Steel	Corporation								of:	4 TÜV Rheinlan			
Loca	ition:	147, Jeokhyeon-ro,	Seongsan-gu,Changw	on-si,	147, Jeokhye	eon-ro,	Seongs	san-gu,		Repub	lic of K	orea Date:	09.06.2023	Industrie Service		
		Gyeongsangnam-do	o, 51708, Republic of K	orea	Ch	angwo	n-si,			·		Rev.:	24	GmbH		
Cur -		als-term ials-No.	Material Specification	Delivery Cond.	Article Type of Product			ensions Ø mm		Weight max		Technical Specifications Requirements Technical	Remarks			
						fro	Up to	from	Up to			Regulations				
1		2	3	4	5	m 6a	6b	7a	7b	8a	ult 8b	9		10		
1. N	laterials acco	rding to harm	onized Europea	n standar	ds (hEN) and	Furc	pean				/lata	iale (EAM) acc	Directive 2	014/68/FII		
The i			.				•									
parti	cular material appr	raisal. With that the	ctive 2014/68/EU is bo	und to the p lity for equiv	ublication of Harmo	onized es acc	Europe cording	ean Star to othe	ndards	or to	the qu	alification by a Euro	pean material ap			
partic the a	cular material appr pplicable code res 1.4301, 1.4306 1.4435, 1.4436	raisal. With that the	ctive 2014/68/EU is bo manufacturing reliab	und to the p lity for equiv	ublication of Harmo	onized es acc	Europe cording	ean Star to othe	ndards	or to	the qu	alification by a Euro	pean material ap proved. The req	proval or to the juirements and limits e is required		
particular 1 2	1.4301, 1.4306 1.4301, 1.4306 1.4435, 1.4436 1.4435, 1.4436	raisal. With that the spectively the PED r. 6, 1.4401, 1.4404 6, 1.4541, 1.4571 6, 1.4404, 1.4571	ctive 2014/68/EU is be manufacturing reliable nust be observed for EN 10272 EN 10222-5	und to the p lity for equiv the use of ma +AT +AT	ublication of Harmo valent material grad aterial grades listed Rolled Bar Forged Product	es acc d in co	Europe cording lumn 2	ean Star to othe to 4. 5.5	205 550	or to dards (the qu (e.g. B	alification by a Euro S, AFNOR, ASME) is EN 10272 EN 10222-5	pean material ap proved. The req	proval or to the uirements and limits		
he a	1.4301, 1.4306 1.4301, 1.4306 1.4435, 1.4436 1.4301, 1.4306 1.4301, 1.4306 1.4435, 1.4436	raisal. With that the spectively the PED r 6, 1.4401, 1.4404 6, 1.4541, 1.4571	ctive 2014/68/EU is bo manufacturing reliabl nust be observed for EN 10272	und to the p lity for equiv the use of ma	ublication of Harmo valent material grad aterial grades listed Rolled Bar	onized es aco d in co	Europe cording lumn 2	ean Star to othe to 4.	ndards er stand 205	dards (the qu (e.g. B	alification by a Euro S, AFNOR, ASME) is EN 10272	pean material ap proved. The req	proval or to the uirements and limits		
partic the a	1.4301, 1.4306 1.4435, 1.4436 1.4435, 1.4436 1.4435, 1.4436 1.4435, 1.4436 1.5415, 1.4901 1.4301, 1.4306, 1.4571, 1.4539, 1.4501, 1.4912	raisal. With that the spectively the PED r 5, 1.4401, 1.4404 5, 1.4541, 1.4571 6, 1.4404 6, 1.4541, 1.4571 6, 1.4541, 1.4571 6, 1.7383,	ctive 2014/68/EU is be manufacturing reliable nust be observed for EN 10272 EN 10222-5	und to the p lity for equiv the use of ma +AT +AT	ublication of Harmo valent material grad aterial grades listed Rolled Bar Forged Product	es acc d in co	Europe cording lumn 2	ean Star to othe to 4. 5.5	205 550	or to dards (the qu (e.g. B	alification by a Euro S, AFNOR, ASME) is EN 10272 EN 10222-5	pean material ap proved. The req	proval or to the uirements and limits e is required		
particular the a	1.4301, 1.4306 1.4301, 1.4306 1.4435, 1.4436 1.4435, 1.4436 1.4435, 1.4436 1.5415, 1.4901 1.4301, 1.4306, 1.4571, 1.4539, 1.4501, 1.4902 1.4301, 1.4301, 1.4307, 1.4301, 1.4301, 1.4301, 1.4301	raisal. With that the spectively the PED r	EN 10222-2	und to the p lity for equiv the use of ma +AT +AT +NT/+QT	ublication of Harmovalent material grade aterial grades listed Rolled Bar Forged Product Forged Product	onized les acc d in co	Europe cording lumn 2	205	205 550 600	or to dards (2 2 12 13	EN 10222-5 EN 10222-2	pean material ap proved. The req	proval or to the uirements and limits		

Remarks	+AT = solution annealed	+NT	Γ =	normalized and tempered	а	= PMA for the use in pressure equipment
	+AR = as rolled	+QT	Γ =	quenched and tempered		in Directive 2014/68/EU neccessary
	+M = thermo mechanical tre	eated +S	=	soft annealed		
	+N = normalized or normali	zing formed +SR	₹ =	stress relieved		



Scope:	□ Directive 2	x I point 4.	.3		⊠E	N 764	1-4			⊠ A	⊠ AD 2000-Merkblatt W 0			
ı	Certificate holder (Manufa	cturer of materials)		Manufa	cturii	ng plar	nt		Na	tionali	ity Page	No.:	2	
Company Nar	ne: SeAH Changwon II	ntegrated Special Steel	Corporation							of:		4	TÜV Rheinland	
Location:	147, Jeokhyeon-ro	Seongsan-gu,Changw	on-si,	147, Jeokhyed	on-ro,	Seong	san-gu,	Republic of Kore		Republic of Korea			09.06.2023	Industrie Service
	Gyeongsangnam-d	o, 51708, Republic of K	Corea	Cha	ngwo	n-si,					Rev.:		24	GmbH
Cur -	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	fro	ick- ess nm	ensions Ø mm from Up		1:	eight lax =t / =kg res	Techni Specifica Requiren Techni Regulat	ations ments ical	Remarks	
4	2	3	4	5	m 6a	to 6b	7a	to 7b	8a	ult 9				
material appra	materials according to DG isal. With that the manufact e respectively the PED mus	uring reliability for eq	uivalent mate	erial grades accordii	ng to	other s	tandard							
-	1, 1.4306, 1.4401, 1.4404 5, 1.4436, 1.4541, 1.4571	DIN EN 10272	+AT	Rolled Bar	-	-	5.5	205	1	2	AD2000-W2	2 & W10	responsibility of	a contract for the he UT for OD.350.001 orged bar and for
_	1, 1.4306, 1.4401, 1.4404 5, 1.4436, 1.4541, 1.4571	DIN EN 10222-5	+AT	Forged Product	10	700	205	550	1	12	AD2000-W2	2 & W10	OD.91~120mm of the seamless pipes. The thickness more than DIN EN10222-5 can be delivered with PMA.	
3	**1.5415, **1.7383, *1.4901, *1.4903	DIN EN 10222-2 VdTÜV 511/3 VdTÜV 552/3	+NT/+QT	Forged Product	10	*400	70	*600	1	13	AD2000-	-W13	*The dimensions are applicable as below For material no. 1.4901, 1.4903, 1.490 acc. to AD2000 rules, the manufacturer must be listed in the VdTÜV material d sheet 552/3, 511/3, 550 or single approve with a 3.2 certificate is requested.	
													with a 3.2 certific	/3, 550 or single approva
1.	, 1.4306, 1.4401, 1.4404, 4571, 1.4539, 1.4435 1, 1.4912, 1.4307, 1.4541, *1.4907	DIN EN 10216-5 VdTÜV 550	+AT	Seamless Pipe	1.0	*23.01	10	*273.1	2	800	AD2000-W2	2 & W10	The production s proved.	/3, 550 or single approva
1. **1.450	4571, 1.4539, 1.4435 1, 1.4912, 1.4307, 1.4541,		+AT +AT +NT	Seamless Pipe Wire Rod Rolled Bar	1.0	*23.01	10 5.5 28	*273.1 34 205	1	2 2	AD2000-W2 AD2000-W2 AD2000-W2	2 & W10	The production s proved. **3.2 certificate is	/3, 550 or single approv ate is requested. afety(statisfics)has beer

Remarks	+AT =	= solution annealed	+NT	=	normalized and tempered	а	= PMA for the use in pressure equipment
	+AR =	= as rolled	+QT	=	quenched and tempered		in Directive 2014/68/EU neccessary
	+M =	= thermo mechanical treated	+S	=	soft annealed		
	+N =	 normalized or normalizing formed 	+SR	=	stress relieved		



-	oe:	☑ Directive 2014/68/EU Annex I point 4.3							4-4			⊠ AD 2000	⊠ AD 2000-Merkblatt W 0			
	Certificate hold	der (Manufactur	rer of materials)		Manuf	acturir	ng plar	nt		Nati	onality	Page No.:	3			
Comp	pany Name: SeAH	Changwon Intec	grated Special Steel Co	rporation								of:	4	TÜV Rheinland		
Locati	ion: 147, .	Jeokhyeon-ro, Se	147, Jeokhyeon-ro, Seongsan-gu, Republic of Ko						c of Korea	Date:	09.06.2023	Industrie Service				
	Gyeo	Gyeongsangnam-do, 51708, Republic of Korea			Changwon-si,						Rev.:	24	GmbH			
Cur -	Materials-ter Materials-No			Deliver y Cond.	Article Type of Product		Dimensions					Technical Specifications Requirements		Remarks		
						m	m	m	nm	1=t / 2=kg		Technical Regulations				
						fro m	Up to	fro m	Up to	↓	resul t					
1	2		3	4	5	6a	6b	7a	7b	8a	8b	9		10		
1	(S)A453 Gr.6	60	ASME/ASTM	+AT	Rolled Bar				005	T 4						
	able code respectively									1 4						
,	(S)A453 Gr.6			.,	Nonea Dai	_	-	5.5	205	1	2	ASME/ASTM				
2	(5)4453 (10)	00	(S)A453			-										
	. ,		ASME/ASTM (S)A453	+AT	Forged Bar	-	-	205	550	1	12	ASME/ASTM				
*3	316L(N)-IG		ASME/ASTM			-					12		*3.2 certificate because of ins			
*3	. ,		ASME/ASTM (S)A453 ITER_D_2DX6KS	+AT	Forged Bar Forged product Rolled & Forged	-	-		550	1	12	ASME/ASTM RCC-MR,2007, Section2- Materials Chapter				
4 5	316L(N)-IG 1.4305 1.4301, 1.4306, 1.440 1.4435, 1.4436, 1.454)1, 1.4404 	ASME/ASTM (S)A453 ITER_D_2DX6KS v1.4 EN10088-3 EN10088-3	+AT +AT +AT +AT	Forged Bar Forged product Rolled & Forged product Wire Rod	-	- 2000	205 - 16 5.5	550 2300 350 34.0	1 1 1 1 1	12 70 F 5 2	ASME/ASTM RCC-MR,2007, Section2- Materials Chapter RM3321 EN10088-3	because of ins	e is required sufficient material data		
4	316L(N)-IG 1.4305 1.4301, 1.4306, 1.440	01, 1.4404 11, 1.4571 304/304L,	ASME/ASTM (S)A453 ITER_D_2DX6KS v1.4 EN10088-3	+AT +AT +AT	Forged Bar Forged product Rolled & Forged product	- - - - 1.0	- 2000	205	550 2300 350	1 1 1 1 1	12 70 F 5 2	ASME/ASTM RCC-MR,2007, Section2- Materials Chapter RM3321 EN10088-3	because of ins			



Sco	pe:	☑ Directive 20	014/68/EU Annex I	point 4.		⊠ EN 764-4					⊠ AD 2000-Merkblatt W 0			
	Certifica	ate holder (Manufac	cturer of materials)	rer of materials) Manufactur				ing plant			ionality	Page No.:	3	
Com	pany Name:	SeAH Changwon In	ntegrated Special Steel Co					•		of :	4	TÜV Rheinland		
Loca	ation:	147, Jeokhyeon-ro,	Seongsan-gu,Changwon-	-si,	147, Jeokhye	eon-ro,	Seong	san-gu	,	·		a Date:	09.06.2023	Industrie Service
		Gyeongsangnam-do	o, 51708, Republic of Kor	ea	Ch	angwo	n-si,					Rev.:	24	GmbH
Cur -		rials-term rials-No.	Material Specification	Deliver y Cond.	Article Type of Product	ne	Dime ick- ess nm		s Ø mm	n	eight nax / 2=kg	Technical Specifications Requirements Technical Regulations		Remarks
						fro m	Up to	fro m	Up to		resul t			
1	(C) A 07C 20 4/20	2	3	4	5	6a	6b	7a	7b	8a	8b	9		10
8	(S)A479 304/	04L, 316/316L, 321 /304L, 316/316L, 1/321H	ASME/ASTM (S)A276 ASME/ASTM (S)A479	+AT +AT	Rolled Bar Rolled bar	-	-	5.5 5.5	205 205	1	2 2	ASME/ASTM ASME/ASTM		
9 10	(S)A479 304/	04L, 316/316L, 321 /304L, 316/316L, 1/321H	ASME/ASTM (S)A276 ASME/ASTM (S)A479	+AT +AT	Forged Bar Forged Bar	10 10	700 700	205 205	550 550	1 1	12 12	ASME/ASTM ASME/ASTM	See "a".	
11 12 13 14 15 16	2.4856 A493 304/304L (S)A312 TP304, (S)A376 T	3637 6, 2.4858 _, 316/316L, 316Ti /304L, TP316/316L FP304, TP316 7, 1.4401, 1.4404	ASTM B637 DIN 17752 ASTM A493 ASME/ASTM (S)A312 ASME/ASTM (S)A376 EN 10297-2	+AT +AT +AT +AT +AT +AT	Rolled Bar Rolled Bar Wire Rod Seamless Pipe Seamless Pipe Seamless Pipe	- - 1.0 1.0 1.0	23.0 23.0 23.0 23.0	5.5 5.5 5.5 10 10	205 205 34 273.1 273.1 273.1	1 1 1 2 2 2	19 18 2 800 800 800	ASTM DIN 17752 ASTM ASME/ASTM ASME/ASTM EN10297-2		IZTOTA Services

Ē	Remarks	+AR +M	= solution annealed = as rolled = thermo mechanical treated	+NT +QT +S	= = =	normalized and tempered quenched and tempered soft annealed	а	=	PMA for the use in pressure equipment in Directive 2014/68/EU neccessary
		+N	= normalized or normalizing formed	+SR	=	stress relieved			