



## CERTIFICATE

A03/Z02  
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A02/Z03

INSPECTION CERTIFICATE acc to  
EN 10204 3.1

A06

Processkontroll Items AB  
Box 2088  
444 02 STORA HÖGA  
SWEDENINSPECTION STAMP  
QA-TUBE

<b>Customer References</b> A07		<b>Sandvik References</b> A08						
756761/Holmgren	Customer order 2018-08-20	Order No. 520941	Subs No. 657600					
003-00991 ITEMS		ABSMT No. 300-85136	ABSMT Dispatch note 27122/54					
<b>Material description</b> B01/B04		<b>Steel/material Designations</b> B02						
SEAMLESS STAINLESS COLD FINISHED PIPE		Sandvik UNS SAF 2205 S31803/S32205						
<b>Steel making process</b> C70								
Electric furnace								
<b>Technical requirements</b> B03								
ASTM A-790-17, ASME SA-790-ED-17 NACE MR0175/ISO 15156-3:2015, NACE MR0103/ISO 17945:2015 ASTM G-48A								
<b>EXTENT OF DELIVERY</b> B07-B13								
It	Product designation	Heat	Lot	Pieces	Kg	M		
01	TST-SAF2205-1/2-SCH40 21.34 X 2.77	549223	39120	22	165.0	136.02		
Total				22	165.0	136.02		
<b>TEST RESULTS</b>								
<b>Chemical composition (weight%)</b>								
Heat	C	Si	Mn	P	S	Cr	Ni	Mo
549223	0.015	0.53	0.77	0.021	<0.0005	22.20	5.18	3.26
N								
549223	0.164							
<b>Tensile test at room temperature</b>								
	Yield strength	Tensile strength		Elongation				
	MPa	MPa		%				
Lot	Rp0.2	Rm		2"				
39120	629	848		32				
	629	845		39				
<b>Quality assurance - Sofia Åkesson / Q-Manager</b>				A05/Z02				
<b>MTC Service / Certificates</b>								



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## Hardness test

	Min	Max
Lot	HRC	HRC
39120	23	25

Corrosion test according to ASTM G-48A, 25°C for 24 hours.  
In delivery condition.

No pitting corrosion found at 20x enlargement.

## Specimen weight loss

Lot	g/m2
39120	0.50
	0.25

## Ferrite acc to ASTM E-562

Lot	%
39120	48.8
	45.8

## Following controls/tests have been satisfactorily performed:

- Flattening test.
- 100% PMI-test.
- Leak test: Eddy current test acc to ASTM Pr.E309  
with drilled hole as reference standard in lieu of hydrostatic test.
- Visual inspection and dimensional control.

## Heat Treatment:

Solution annealed and quenched.

The raw material is free from radioactive contamination.

Material free from mercury contamination.

The number of tests are based on the size of the manufacturing lot  
before cutting to finished lengths.

The delivered products comply with the specifications and  
requirements of the order.

The material is manufactured according to a Quality system,  
approved and registered to ISO 9001:2015.

No unauthorized alterations. The contents of this Inspection  
Certificate may not be modified or revised in any way without the  
prior written approval of AB Sandvik Materials Technology.  
Unauthorized alterations to the Inspection Certificate, including  
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The certificate is produced with EDP and valid without signature.