


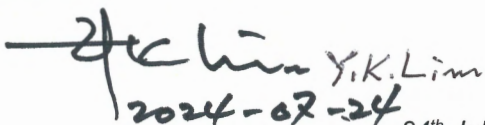


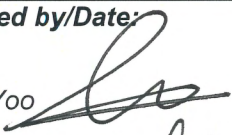

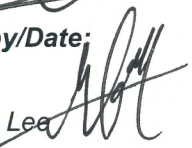
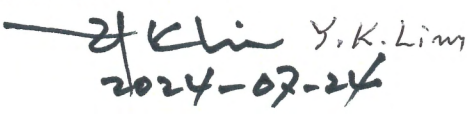

	<b>Qualification Test Record (QTR)</b> <b>NORSOK M-650</b>		QTR. No.: SeAHCSS-QTR-202401		
			Rev. No.: 1		
<b>Manufacturer name</b> <b>/Address</b> <b>/Web page:</b>	SeAH CSS (SeAH Changwon Integrated Special Steel Corporation) 147, Jeokhyeon-ro, Seongsan-gu, Changwon, Gyeongnam, Korea <a href="http://www.seahss.co.kr">www.seahss.co.kr</a>				
<b>Reference standards:</b>	NORSOK M-650 Edition 4, September 2011 DNV-SE-0079 Edition May 2021(Amended March 2022)				
<b>Material designation and MDS No.:</b>	Rolled bars : NORSOK M-630:2020, MDS D57 Rev.6 S32760				
<b>Manufacturing Summary doc. No.:</b>	MS3 S32760			Rev. No.: 3	
<b>Products and Manufacturing process(es):</b>	Raw materials are melted(EAF) and refined(VOD) using SeAH CSS own facility. Round bars which are produced by rolling process. All manufacturing is progressed using SeAH CSS's own facility.				
<b>Mandatory conditions and sub-contractors:</b>	<ul style="list-style-type: none"> <li>• The steel making shall carried out using EAF and for refining according to MQ-R10-01 R.1.</li> <li>• The rolled bar shall be solution annealed followed by water quenching using heat treatment furnace I.D no. 2 according to MQ-R20-03 R.7.</li> <li>• All material test is carried out at any other ISO 17025 certified lab.</li> <li>• Chemical analysis is carried out at SeAH CSS own lab.</li> <li>• Non-destructive inspection shall be carried out by certified person according to ISO 9712.</li> </ul>				
<b>Other information:</b>	Furnace temperature uniformity test is carried out according to MQ-R20-04 R.1.				
<b>Qualification expires:</b>	Valid 5 years (from 24 <sup>th</sup> July 2024 to 23 <sup>th</sup> July 2029)				
<b>Tested and qualified thickness and weight</b>					
<b>Products and manufacturing process(es):</b>	<b>Test record No.</b>	<b>Tested thickness, mm</b>	<b>Qualified thickness, mm</b>	<b>Test piece weight, kg</b>	<b>Qualified weight, kg</b>
Rolled bars	MQ-R4006-01 MQ-R4006-02	60.0 80.0	14.7~60.0 14.7~80.0	N/A	N/A
<b>Qualification/acceptance signatures</b>					
<b>Manufacturer:</b>	<b>Prepared by/Date:</b>  Jiwon Yoo 24 <sup>th</sup> July 2024		<b>Checked by/Date:</b>  Youngsook Bae 24 <sup>th</sup> July 2024		
	<b>Prepared by/Date:</b>  Yeongeun Lee 24 <sup>th</sup> July 2024		Youngsook Bae 24 <sup>th</sup> July 2024		
The manufacturer and this QTR are evaluated and found to be in compliance with the requirements of NORSOK M-650 and DNV-SE-0079 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 and DNV-SE-0079.					
<b>Qualified/Accepted by (company name /address):</b> Youngki Lim, Material/Welding Expert DNV, 48120 Busan, South Korea  Ki Mun Lee / Verifier			<b>Signature/Date:</b>  2024-07-24 24 <sup>th</sup> July 2024 		



	<b>Manufacturing Procedure Conformity Record (MPCR) ISO 17782</b>		MPCR. No.: SeAHCSS-MPCR-202401		
			Rev. No.: 1		
<b>Manufacturer name /Address /Web page:</b>	SeAH CSS (SeAH Changwon Integrated Special Steel Corporation) 147, Jeokhyeon-ro, Seongsan-gu, Changwon, Gyeongnam, Korea <a href="http://www.seahss.co.kr">www.seahss.co.kr</a>				
<b>Reference standards:</b>	ISO 17782 Edition 2018 DNV-SE-0079 Edition May 2021(Amended March 2022)				
<b>Material designation and MDS No.:</b>	Rolled bars : ISO 13703-2:2023, MDS D257 Rev.1 S32760				
<b>Manufacturing Procedure Summary doc. No.:</b>	MS3 S32760			Rev. No.: 3	
<b>Products and manufacturing process(es):</b>	Raw materials are melted(EAF) and refined(VOD) using SeAH CSS own facility. Round bars which are produced by rolling process. All manufacturing is progressed using SeAH CSS's own facility.				
<b>Mandatory conditions and sub-contractors:</b>	<ul style="list-style-type: none"> <li>• The steel making shall carried out using EAF and for refining according to MQ-10-01 R.1.</li> <li>• The rolled bar shall be solution annealed followed by water quenching using heat treatment furnace I.D no. 2 according to MQ-R20-03 R.7.</li> <li>• All material test is carried out at any other ISO 17025 certified lab.</li> <li>• Chemical analysis is carried out at SeAH CSS own lab.</li> <li>• Non-destructive inspection shall be carried out by certified person according to ISO 9712.</li> </ul>				
<b>Other information:</b>	Furnace temperature uniformity test is carried out according to MQ-R20-04 R.1.				
<b>Qualification expires:</b>	Valid 5 years (from 24 <sup>th</sup> July 2024 to 23 <sup>th</sup> July 2029)				
<b>Tested and qualified thickness and mass</b>					
<b>Products and manufacturing process(es):</b>	<b>Test record No.</b>	<b>Tested thickness, mm</b>	<b>Qualified thickness, mm</b>	<b>Test piece mass, kg</b>	<b>Qualified mass, kg</b>
Rolled bars	MQ-R4006-01 MQ-R4006-02	60.0 80.0	14.7~60.0 14.7~80.0	N/A	N/A
<b>Qualification/acceptance signatures</b>					
<b>Manufacturer:</b>	<b>Prepared by/Date:</b> Jiwon Yoo  24 <sup>th</sup> July 2024		<b>Checked by/Date:</b> 		
	<b>Prepared by/Date:</b> Yeonggeun Lee  24 <sup>th</sup> July 2024		Youngsook Bae 24 <sup>th</sup> July 2024		
<p>The manufacturer and this MPCR are evaluated and found to be in compliance with the requirements of ISO 17782 and DNV-SE-0079 for supply of the above listed products and materials.</p> <p>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 ISO 17782 and DNV-SE-0079.</p>					
<b>Qualified/Accepted by (company name /address):</b> Youngki Lim, Material/Welding Expert DNV, 48120 Busan, South Korea  Ki Mun Lee / Verifier			<b>Signature/Date:</b>  Y.K. Lim 2024-07-24  Kimun Lee 24 <sup>th</sup> July 2024		





# CERTIFICATE OF QUALIFICATION MANUFACTURERS OF SPECIAL MATERIALS

Certificate No:  
**COQ0000013**

This is to certify:

That

**SeAH Changwon Integrated Special Steel Corporation**  
Changwon-si, Gyeongsangnam-do, Republic of Korea

has undergone a qualification exercise as per:

**NORSOK M-650 Edition 4, ISO 17782 (2018) and DNVGL-SE-0079<sup>1)</sup>**

and the requirements stated in the standards above have been fulfilled for the following:

<b>Product:</b>	<b>Bars</b>
<b>Grade:</b>	<b>NORSOK M-630, MDS D57 UNS S32760</b>
<b>Manufacturing process:</b>	<b>Rolling</b>
<b>Maximum qualified thickness:</b>	<b>99.5 mm</b>
<b>Maximum qualified weight:</b>	<b>All</b>

<sup>1)</sup> The qualification exercise was carried out to verify compliance with all the requirements in NORSOK M-650 and ISO 17782 without a defined order and without authorization from Company or Main Contractors.

QTR Reference No: **SeAHCSS-QTR-202101**  
MPCR Reference No: **SeAHCSS-MPCR-202101**

Issued at **Høvik** on **2021-05-25**

for **DNV**

This Certificate is valid until **2026-05-24**.

DNV local station: **Oslo Materials Advisory**

Technical Authority: **Vebjørn Andresen**

**Sondre Løken**  
**Group Leader - Materials Advisory**

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Form code: MSM 301

Revision: 2021-03

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