

# APPROVAL OF MANUFACTURER CERTIFICATE

**This is to certify:**

**That**

**EREGLI DEMIR CELIK FABRIKALARI TAS.  
Uzunkum No. 7 Karadeniz Ereğli 67330 Zonguldak,  
Turkey**

is an approved manufacturer of  
**Steelmaking and Rolled Steel Products**

in accordance with  
**DNV GL rules for classification – Ships**

and the following particulars:

<b>Application area</b>	<b>Normal strength steel, High strength steel</b>
<b>Products</b>	<b>Plates, Plates made from Coils, See page 2</b>
<b>Manufacturing method</b>	<b>See page 2</b>
<b>Max. thickness</b>	<b>See page 2</b>
<b>Deoxidation</b>	<b>Killed</b>
<b>Fine grain elements</b>	<b>See page 2</b>
<b>Heat treatment condition</b>	<b>See page 2</b>

Manufacturer(s) approved by this certificate is/are accepted to deliver according to DNV GL, DNV and GL rules. Materials to be applied to DNV GL classed object shall fulfill the material requirements in the applicable DNV GL class rules.

Issued at **Hamburg** on **2020-09-08**

for **DNV GL**

This Certificate is valid until **2023-06-30**.

DNV GL local station: **Istanbul**

Approval Engineer: **Enno Brück**

**Thorsten Lohmann**  
**Head of Section**

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Job Id: **263.11-007577-2**  
 Certificate No: **AMMM00001FU**  
 Revision No: **1**

## Particulars of the approval

### Normal strength steel

Grade	Product	Steel making <sup>1)</sup>	Fine grain elements	Max. thickness [mm]	Heat treatment condition <sup>2)</sup>
VL A, VL B	Plate	BOC, CC	Al	60	AR
VL D	Plate	BOC, CC	Al	8	NR
VL D, VL E	Plate	BOC, CC	Al	60	N

### High strength steel

Grade	Product	Steel making <sup>1)</sup>	Fine grain elements	Max. thickness [mm]	Heat treatment condition <sup>2)</sup>
VL A32, VL A36	Plate	BOC, CC	Al+Nb	60	NR
VL D32, VL D36	Plate	BOC, CC	Al+Nb	8	NR
			Al+Nb	60	N
VL E32, VL E36 VL F32, VL F36	Plate	BOC, CC	Al+Nb	60	N

### Normal strength steel

Grade	Product	Steel making <sup>1)</sup>	Fine grain elements	Max. thickness [mm]	Heat treatment condition <sup>2)</sup>
VL A, VL B	Plates made from Coils	BOC, CC	Al	15	NR
VL D		BOC, CC	Al	8	NR
VL D, VL E		BOC, CC	Al	15	N

### High strength steel

Grade	Product	Steel making <sup>1)</sup>	Fine grain elements	Max. thickness [mm]	Heat treatment condition <sup>2)</sup>
VL A32, VL A36	Plates made from Coils	BOC, CC	Al+Nb	15	NR
VL D32, VL D36		BOC, CC	Al+Nb	8	NR
			Al+Nb	15	N
VL E32, VL E36 VL F32, VL F36		BOC, CC	Al+Nb	15	N

#### Remarks:

- <sup>1)</sup> BOC: Basic oxygen converter  
CC: Continuous casting
- <sup>2)</sup> AR: as rolled  
N: normalised  
NR: normalising rolling