

## Mooring line base design certificate TS CERT 7803 E rev. 1

### General information

<b>Issue date:</b>	11.07.2019	<b>Expiry date:</b>	10.07.2024
<b>Line manufacturer</b>	TIMM SLOVAKIA s.r.o	<b>Independent inspection agency:</b>	DNV GL
<b>Line design designation:</b>	Acera Amundsen, Acera Amundsen SBA	<b>Material type and grade:</b>	HMPE Acera
<b>Line construction:</b>	12x1 – braided/plaited	<b>Jacketed:</b>	No
<b>Design range:</b>	16 mm – 64 mm	<b>DNV GL Type Approval:</b>	TAK0000097 rev.1

### Base design performance indicators

Performance Indicators	Smallest Diameter				Largest Diameter			
	Design:	16mm	Measured:	17mm	Design:	64mm	Measured:	64,5mm
<b>Diameter</b>								
<b>Line Design Break Force (LDBF)</b>	23 t				270 t			
<b>Line Linear Density (LLD) with SBA</b>	0,166 kg/m				1,951 kg/m			
<b>Load Bearing Linear Density (LBLD)</b>	0,144 kg/m				1,862 kg/m			
<b>Line Tenacity (LT) without SBA</b>	162,9 t/kg/m				145,4 t/kg/m			
	<b>D/d Ratio: 5</b>				<b>D/d Ratio:10</b>			
<b>Angled Break Force* (ABF) % Avg NSBF</b>	184,68% / 92,34%			199,18% / 99,59%				
<b>Angled Endurance* (AE) % Avg NSBF</b>	60,04%			86,00%				
	<b>-20 °C</b>	<b>0 °C</b>	<b>20 °C</b>	<b>40 °C</b>	<b>60 °C</b>	<b>80 °C</b>		
<b>Temperature (T)** % BF at 20°C</b>	111%	110%	100%	94%	86%	57%		
<b>Axial Compression Resistance* (ACR)</b>	93,16%							
	<b>%LDBF:10</b>	<b>%LDBF:20</b>	<b>%LDBF:30</b>	<b>%LDBF:40</b>	<b>%LDBF:50</b>			
<b>Average Immediate Strain* (e)</b>	0,20%	0,42%	0,62%	0,82%	1,01%			

**Splice type:** Inside splice

**Maximum Line Tenacity:** 162,9 t/kg/m

\*Performance indicators are tested on samples: 16mm for Acera Amundsen mooring line

\*\*Temperature indicator performed at yam level

### Name and address of manufacturing facility:

TIMM SLOVAKIA s.r.o., Nozdrkovce 3140/37, 911 04 Trenčín, Slovakia

### Independent inspector:

Henrich Illáš

### Completion date:

24.07.2020

### Address of independent inspector:

DNV GL, Rolníckej Školy 1519, 94525 Komárno, Slovak Republic

### Base design testing information

#### Name and address of test facility:

TIMM SLOVAKIA s.r.o., Nozdrkovce 3140/37, 911 04 Trenčín, Slovakia

#### Independent inspector:

Henrich Illáš

#### Completion date:

24.07.2020

#### Address of independent inspector:

DNV GL, Rolníckej Školy 1519, 94525 Komárno, Slovak Republic

### Base design sample and product documentation reviewed

**Independent inspector:** Henrich Illáš

**Date of review:**

24.07.2020

Base design sample manufacturing report	<input checked="" type="checkbox"/>	Material test report	<input checked="" type="checkbox"/>	Splicing instructions	<input checked="" type="checkbox"/>
Base design sample manufacturing ITP	<input checked="" type="checkbox"/>	Design specification	<input checked="" type="checkbox"/>	Jacketed line internal inspection report – N/A	
Base design sample test report	<input checked="" type="checkbox"/>	Manufacturer's discard and inspection criteria	<input checked="" type="checkbox"/>	Procedures for testing and inspection of retired mooring lines	<input checked="" type="checkbox"/>

Date:



Witnessed  Reviewed

And found to comply with:

ITP/MEG4

Date: 24/07/2020

Sign: Henrich Illáš

Independent inspector