Acera™ Amundsen
Use and Care Guidelines

Acera™ Amundsen is a 12 strand high performance mooring rope made from genuine Acera™ HMPE yarns, with the unique supereye in both ends. Each yarn is individually protected with coating, giving high internal and external abrasion resistance.

Please check the product packaging before opening the package. Any cuts or significant damages should be immediately communicated to a supervisor, with relevant photographs before taking the rope in use. All ropes must be used according to their intended use and any applicable guidelines specified by class or other governing bodies.

It is recommended that new ropes are loaded carefully for the first 5-10 mooring operations, in order for the rope fibers to settle into position. We recommend to always use single tails connected with cow hitch when mooring with Acera™ Amundsen. Mooring ropes are not intended for towing, as towing involves shock loads that exceed the Working Load Limit, as shown in the strength diagram below.

When installing the product, a rotating platform should be used to ensure the rope remains without twist. Twist in a rope will reduce the overall strength. When installing the product on a split drum winch, we recommend as according to OCIMF MEG4 a minimum of 10 full turns on the tension drum, in one layer only. If 10 full turns are not possible, we recommend to make as many wraps as possible in one single layer.

Working Load Limit: 50% of spliced MBL (LDBF)
Recommended Working Load: 22% of spliced MBL (LDBF)

Timm™ ropes are made as according to ISO and Cordage Institute, following the recommendations from OCIMF MEG4. The ropes are Type Approved by DNV GL.

Strength diagram for mooring ropes

<table>
<thead>
<tr>
<th>% ship design MBL</th>
<th>LOF = 100-105% ship design MBL</th>
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</thead>
<tbody>
<tr>
<td>105</td>
<td>Ship Design MBL</td>
</tr>
<tr>
<td>75</td>
<td>Residual strength – Recommended retirement of mooring lines as according to OCIMF MEG4</td>
</tr>
<tr>
<td>55 wire</td>
<td>Working Load Limit</td>
</tr>
<tr>
<td>50 synthetics</td>
<td>Working Load Limit</td>
</tr>
<tr>
<td>22</td>
<td>Recommended working load</td>
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Packaging in good condition
Certificates available and stored onboard the vessel
All mooring equipment have smooth steel surfaces with even paint and no sharp edges
Acera™ HMPE rope installed with a turntable to avoid twisting of the rope
In case of tension drum on the winch: The tension drum contains only one single layer of rope
Each Acera™ HMPE rope is connected with a single mooring tail with cow hitch as connection method
Rope protection available onboard

Assessing condition should be a combination of visual inspection and the number of running hours that a line has undergone. If you are ever in any doubt in the ability of the product performing its required application, it should be taken out of operation and replaced. More detailed information including inspection and retrieval information can be found at wilhelmsen.com