LAB University of Applied Sciences

LAB Testing & Expert Services

Research report
APPENDIX 1
30.5.2025

Pidä saaristo siistinä ry (Keep the Archipelago Tidy Association)

Research Report, Fishing Nets

-This is a translation of the Finnish report.

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1. Background Information

The aim of this test was to determine whether plate-like material could be manufactured from the upper and lower float lines of discarded fishing nets. The actual netting had been removed, although some remnants from the removal process remained attached to the float lines. No adhesives were used during the manufacturing of the panels.

2. Procedure

First, the float lines were cut into approximately 30 cm segments for compression testing. These were then arranged in two layers: one longitudinally and the other crosswise. Due to the curved shape of the float lines, precise alignment proved challenging.

Figure 1. Lower float lines before compression moulding

The blanks were then compressed using a precision compression press. The temperature used was 135 °C, and the pressure stages applied were 20 bar/cm², 9 bar/cm², and 5 bar/cm². The total compression time was 10 minutes. The goal was to melt the thermoplastic components in the material so they would bond mechanically, avoiding the need for added adhesives.

Figure 2. Compression-moulded plate from lower float lines

After compression, the edges of the plates were trimmed to straight lines. The plate surfaces remained slightly uneven, and their thickness varied between 5 mm and 8 mm.

Figure 3. Left: plate from lower float lines; Right: plate from upper float lines

3. Observations

It was observed that the lower float lines contained a greater proportion of meltable thermoplastic material, resulting in a sturdier and more cohesive plate. Although the plate made from the upper float lines remained intact without added adhesives, it appeared to be structurally weaker than the plate made from the lower float lines.

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