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**Weaves:** Escale 7x1

**Architect:** Sweco Architects

**Application:** Facades, Solar Control

**Location:** Estonia, Tallin

**Market Segment:** Education

## DESCRIPTION

Kindluse Kool, south of Tallinn in Estonia, is a perfect example of a modern school. The high school was designed for 870 children and 70 teachers. Architect Ahti Kooskora from Sweco Project AS designed the complex with a modern Nordic design and divided it into three parts: the entrance hall, dining hall, and assembly hall connected by a two-story building and the single-story elementary school. The primary school building is connected to the school's main entrance via a single-story gallery. A four-story tower, glazed on one side, stands strikingly above the complex.

Developing contemporary school buildings with digitalization, sustainability, and social interactions in mind is essential in today's society. From the floor plan, interior design, and materials to the façade design - every element influences the learning environment. Using GKD metal fabric, escale 7x1 spiral mesh, the fabric was specially manufactured for the Nordic lighting conditions.

Escale 7x1 optimizes the lighting design and the façade of the tower. The architecture and engineering firm Sweco opted for the escale 7x1 spiral mesh with an inclination of 45 degrees. With its high transparency of 64 percent, the need for privacy and sun protection can be adapted to the local lighting conditions.

In combination with the different building structures, the fabric becomes a recurring design element of the school complex. The metal fabric cover a total of 580 square meters and are partly flat and partly offset in a fan shape, thus structuring the large structures. Thanks to the good reflective properties of the material and the geometry of the fabric, both daylight and artificial light become part of the school's vibrant architecture. Kindluse Kool was opened in 2020 and is considered the flagship of the booming region in the south of the Estonian capital.



**AESTHETIC**



**NATURAL LIGHTING**



**SUN SHADING**

