

**Olivia Star Business Centre Gdańsk, Poland**

**Sloping high-rise building façade on the sea line**

**A high-rise building façade on the sea line must meet the most stringent wind load requirements. In spite of this, the architects doubled the size of the glass panels on the top floors of the building, which is also inclined inwards at this point. The VISS façade enabled them keep the number of mullions to a minimum.**

The largest business centre in northern Poland has been evolving in the tri-city area formed by Gdańsk, Sopot and Gdynia since 2010. It currently consists of seven buildings, among which the 180-metre-high Olivia Star Business Centre in the Oliwa district of Gdańsk occupies an ‘outstanding’ position in the truest sense of the word. However, it is not only its height that makes the building stand out from afar, but also its sloping façade: from the top floor to the 32nd floor, it tilts further and further inwards. The result is a viewing platform from which visitors can enjoy a breathtaking view over the Bay of Gdańsk and far into the hilly landscape of forests and lakes south-west of Gdańsk. The platform with glazed parapet is part of the three-storey restaurant and function area in the Olivia Star Business Centre, which is also open to the public. The Gdynia-based architecture firm, BJK Architekci, chose the Jansen VISS façade system to create the mullion-transom structure, which is inclined twelve degrees inwards. Using the heavy-duty steel system meant that the glass panels were exactly double the width of the aluminium profiles of the office façades underneath. In other words, the VISS façade has reduced the number of mullions that disrupt the view to a minimum. As the building is located on the sea line (i.e. as if it were positioned on the open sea), wind pressure and suction forces of approximately 4000 Pascals were taken into account. This is why the façade constructor used stainless steel connectors from the VISS Fire steel profile system. There is no need to worry about the corrosive effect of sea salt, however, as the Baltic Sea is a brackish sea, i.e. a mixture of fresh water and seawater. As the salt water only feeds in from the North Sea via a narrow channel, the salinity of the Baltic Sea decreases the further east you go – in the Bay of Gdańsk it is less than 0.8%. By way of comparison, the average salinity of the North Sea is around 3.5%. (AMR)

**Project Details**

Client: Olivia Star Business Centre, Gdańsk, Poland

Architects: BJK Architekci, Gdynia, Poland

Metalwork: Defor S.A., Śrem, Poland

Steel profile systems: VISS façade, VISS Fire

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