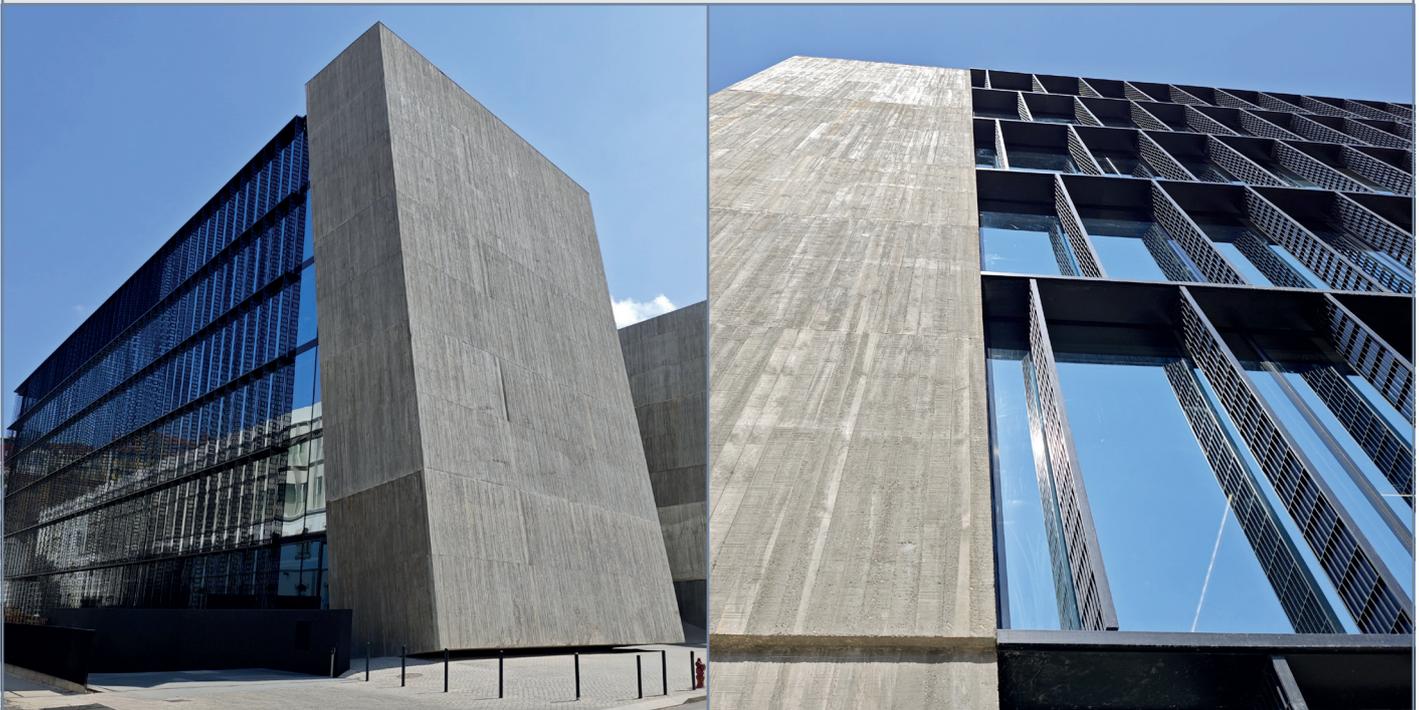


SUNSCREEN GRATINGS FOR GLAZED FACADES

CLIENT	FWD S.A.
LOCATION	LISBON, PORTUGAL
USE	SUNSCREEN SYSTEM FOR THE GLAZED FACADES OF THE NEW EDP HEADQUARTERS
PRODUCT	CUSTOM-MADE GRATINGS WITH SPECIFIC GEOMETRY AND SELF-EXTINGUISHING FORMULATION
SERVICE	TECHNICAL CONSULTANCY, STRUCTURAL CALCULATION, SELF-EXTINGUISHING TESTS



OBJECTIVES

The new EDP headquarters in Lisbon, designed by Alejandro Aravena (ELEMENTAL), is a highly impactful project seeking a **balance between transparency, solidity, and environmental sustainability**. The six-storey building displays exposed concrete facades on the inside, while opening outward with large glazed surfaces. On these, the architect required the integration of special solar protection elements: **vertical fiberglass brise-soleil**, conceived **both to ensure comfort and natural light control and to withstand strong wind loads and the marine climate of Lisbon**. The mesh of the panels, recalling the proportions of their placement on the facade, was designed to integrate with the architectural language, helping to define the contemporary and distinctive image of the new headquarters.

SOLUTIONS

In collaboration with partner FWD, a specialist in FRP (Fiberglass Reinforced Polymers) windows, M.M. developed a **black orthophthalic resin grating**, filled with additives and compliant with fire classification D s3 d0.

With a thickness of 50 mm and a **"checkerboard" configuration of offset load-bearing beams**, the system was dimensioned **to minimize deformations** caused by high design wind speeds (130 km/h). Anchoring was achieved using concealed bushings: panels are fixed at the top and free to slide vertically at the bottom, ensuring both stability and flexibility. The supply included **about 670 elements in three types**, each approximately 4000x330 mm, finished with a **coating that preserves the composite's materiality**, making it visible and consistent with Aravena's architectural vision.

