As architecture, the “Mavrica” (rainbow) kindergarten is socially and environmentally respectful of the human needs of its users – children of all age groups. Much thought went into the initial idea and concepts as research has shown that for the development of a child’s perception of space and creativity, colour and its variety are of great importance.

The thinking behind the floor plan was to form a “comb” like system, where the tracts of the playrooms of different age groups stretch into the perpendicular building area beside the street. The contacting points of the playrooms and the main area are widened and thus form multi-purpose halls. Two of them are finished with glass surfaces and directly connected to the green atriums. The last hall, which is used as a gymnasium, is linked to the external terraced playground.
CURTAIN WALLING REVOLUTION

The entire façade envelope consists of a variety of Trimo façade systems. Besides standard insulated façade systems Trimoterm on several tracts stand out the latest Innovative Q-Air façade system (classified as a Unitized, non-ventilated Curtain Wall system) in this project for the first time. Q-Air is revolutionary, thin, factory engineered, unitised curtain wall system which maximises the interior space of the building and through the use of a variety of available finishing materials, allows free architectural expression. It’s complete curtain wall solution from the inside and outside. Q-Air is a high technological solution with elements that are gas-filled and destined to change the future of modern construction.

THIN, EFFICIENT & SUSTAINABLE

This façade system was the ideal solution for the sustainable, contemporary project requirements since high energy and aesthetic demands of the building envelope were accomplished. As external plate two main materials were used: tempered, black and white enamelled glass and high pressure laminate in various colours (green, light green, yellow, red, black). These visual characteristics enable individual design of the unified façade system while at the same time the optimization in production and assembly is guaranteed.
Considering the annual amount of heat required for heating per unit of usable building surface, the Mavrica kindergarten is ranked in class B2 with energy consumption between 25 and 35 kWh/m²/year. Aside from the highly insulated façade cladding, the biomass fired heating boiler along with the ventilation and cooling systems also helped to lower energy values. Energy efficiency is enhanced considerably with the instalment of additional insulation and three-layered glazing.

The architectural structure of the Mavrica kindergarten respects modern sociological and environmental criteria which provide a high level of accommodation quality for children as well as employees.