



QUALITY CONTROL

High Quality means High Performance Products

All Ektor products are engineered and designed by one of the largest lighting engineering teams in Australia.

With more than 100,000 hours spent in design and engineering, Ektor's latest product range is the best we have produced yet.

ISO9001 MANUFACTURED

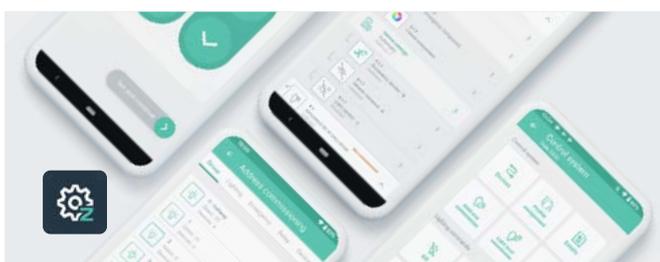
Ektor products are manufactured under an ISO9001 quality system, providing reliability and repeatability. It is audited and certified by TÜV Rheinland, who provide a benchmark in quality systems.

HOLISTIC DESIGN

Ektor products are designed using a holistic approach that considers the place of the product within its larger connected system.

This approach benefits installers and end users due to the consideration given to installability and cross-product interactions.

Ektor products have a consistent and considered aesthetic, essential for seamless integration into interior designs.



MODULAR DESIGN

All products are designed using as many universal parts or modules as possible, allowing for easy assembly, upgrades (future-proofing) and servicing. This reduced assembly variation allows for continuous quality improvements.

SHARED DESIGN FEATURES

Shared design features include terminal block mounts, cable entries, compatible plugs and common wiring layouts. These assist the installer during assembly by improving product familiarity and speeding up installation.

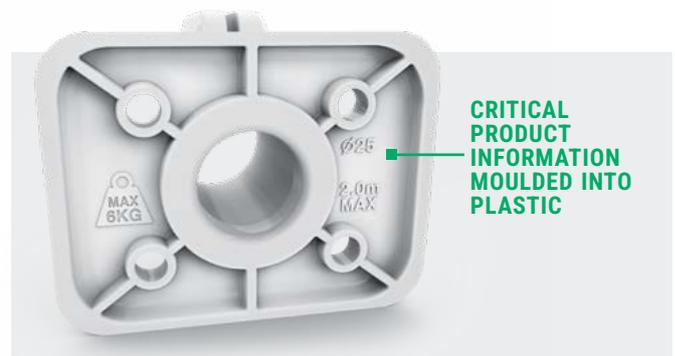
100% MULTI-HOUR BURN-IN AND EXTENDED DURATION TEST

To ensure our products meet customer expectations, all battery-powered Ektor products go through an extended burn-in test. During burn-in, batteries undergo full charge and discharge cycles to ensure proper operation.



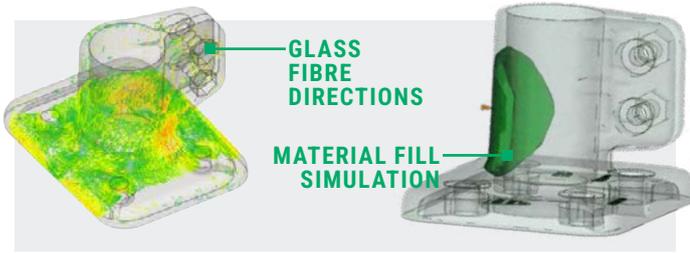
MOULDED INFORMATION

Where possible, plastic components include moulded information essential for product installation, such as dimensions and weight ratings, assisting installers on busy work sites to get it right, saving time and removing guess work.



CLOUD BASED REPORTING

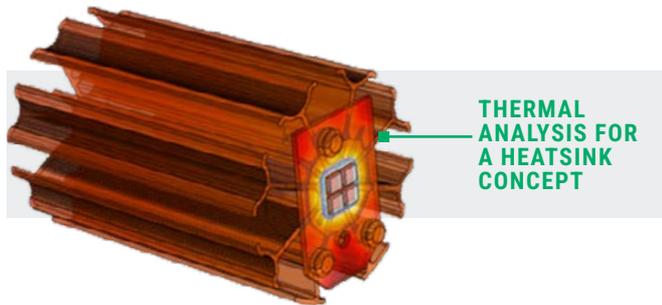
All Ektor DALI and Lynk devices are tracked using the zencontrol cloud. Each device has its initial manufacture and testing dates logged in the database, giving you a complete history of the product. Once commissioned, the data collection continues, allowing thorough recordkeeping and performance analysis.



PLASTIC RHEOLOGY

All Ektor plastic products have predictive material analysis conducted to investigate its plastic rheology (material flow in the tool). This is done to optimise part design, improve quality, reduce development production costs and improve time to market.

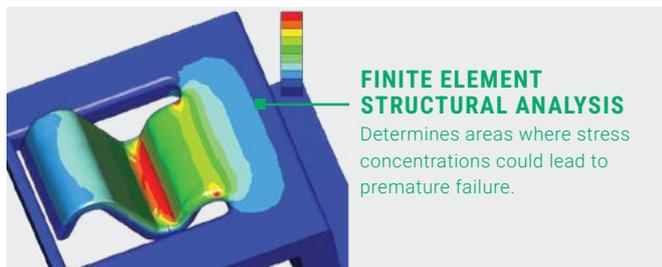
Component fill, fibre direction, stresses, sink marks, shrinkage, cycle-times and warpage are all simulated in a virtual 3D environment, allowing the identification of potential manufacturing issues prior to tooling being created.



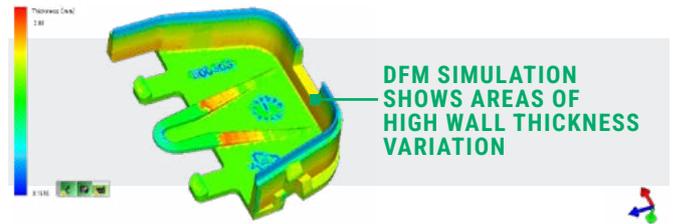
STRUCTURAL FINITE ELEMENT ANALYSIS (FEA)

In the past, parts were over-designed to avoid failure risks using empirical assumptions in the design phase. While this results in a robust product, the increased material used adds cost which is ultimately passed on to the customer.

All Ektor products use finite element analysis simulations on all components to assess performance and safety, identify potential problems, minimise weight and optimise strength.



CONTACT US TO DISCUSS THE BEST SOLUTION FOR YOUR PROJECT



DESIGNED FOR MANUFACTURE (DFM)

Simulation tools within the 3D computer-aided design software (CAD) provide on-demand prompts for engineers on manufacturability, cost efficiency and plastic material impact (sustainability). Based on this information engineers are able to avoid manufacturing issues prior to commencement.

THERMAL FINITE ELEMENT ANALYSIS (FEA)

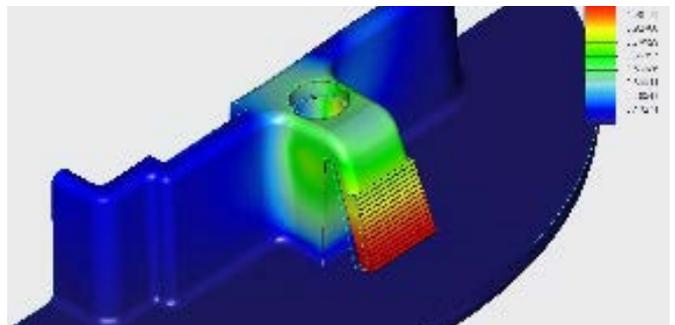
High temperatures can lead to reduced life of components and a reduction in performance. All Ektor products with heatsinks or other thermal requirements have thermal simulations conducted prior to manufacture to optimise the design.

Results are correlated with high resolution thermal imaging to ensure that products are engineered to be best in class.

MANUAL CALCULATIONS

Ektor engineers use calculations to quickly determine component and feature feasibility, tolerances and compliance. This is done during conceptual, design and development stages to provide design direction for 3D CAD models.

Combined with the FEA simulations, calculations are verified as correct prior to component tooling and during testing.



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