

THORN
LIGHTING



INVINCIBLE

IP65/54 recessed panel for clean environments
with strict hygiene requirements



**WE
MAKE
LIGHT
WORK**

LIGHTING FOR DEMANDING CLEANROOM APPLICATIONS

In sectors where hygiene, durability, and lighting performance are critical - such as healthcare, pharmaceuticals, semiconductors, and food production - selecting the right lighting solution is essential.

Introducing Invincible, the recessed LED panel from Thorn that is purpose-built for demanding environments, combining robust engineering with cleanroom-ready design.

Available in three versatile sizes of 600 x 600, 1200 x 300, and 1200 x 600 mm, Invincible features a durable steel housing and a seamless, screwless aluminium frame. Choose between a toughened glass or TP(a) rated polycarbonate diffuser to suit your application.

With IP65 front and IP54 rear ingress protection, an antibacterial foam seal between frame and body, and impact resistance up to IK09, Invincible is built to withstand cleaning chemicals, water, dust, dirt and physical stress. And with low-glare optics and CRI > 90, it delivers visual comfort and high colour accuracy - ideal for precision-critical environments.



Healthcare



Pharmaceutical



Food industry



THE HYGIENE PANEL

In environments where cleanliness is critical, Invincible delivers. Its aluminium frame and powder-coated steel housing are engineered to resist aggressive disinfectants and cleaning agents - ensuring long-term durability in sterile spaces.

Designed to thrive in harsh conditions, Invincible withstands moisture, chemicals, and temperature fluctuations without compromising performance. The seamless, screwless frame not only enhances visual appeal but also eliminates dirt traps, supporting rigorous hygiene protocols.

Backed by specialist certifications, Invincible is trusted for use in hospitals, laboratories, and food production facilities, giving you confidence that your lighting meets the highest industry standards.

Invincible panels are independently tested and certified to meet the most stringent industry standards - ensuring peace of mind in critical environments:

- **Fraunhofer Institute Certified:** Approved for cleanrooms from Class 1 to 9 in accordance with DIN EN ISO 14644-1
- **EN 60598-2-25 Certified:** Luminaires for use in clinical areas of hospitals and health care buildings
- **HACCP Certified:** Suitable for food production and handling environments when specified with a polycarbonate diffuser
- **Complies with GMP** (Good Manufacturing Practice) regulations

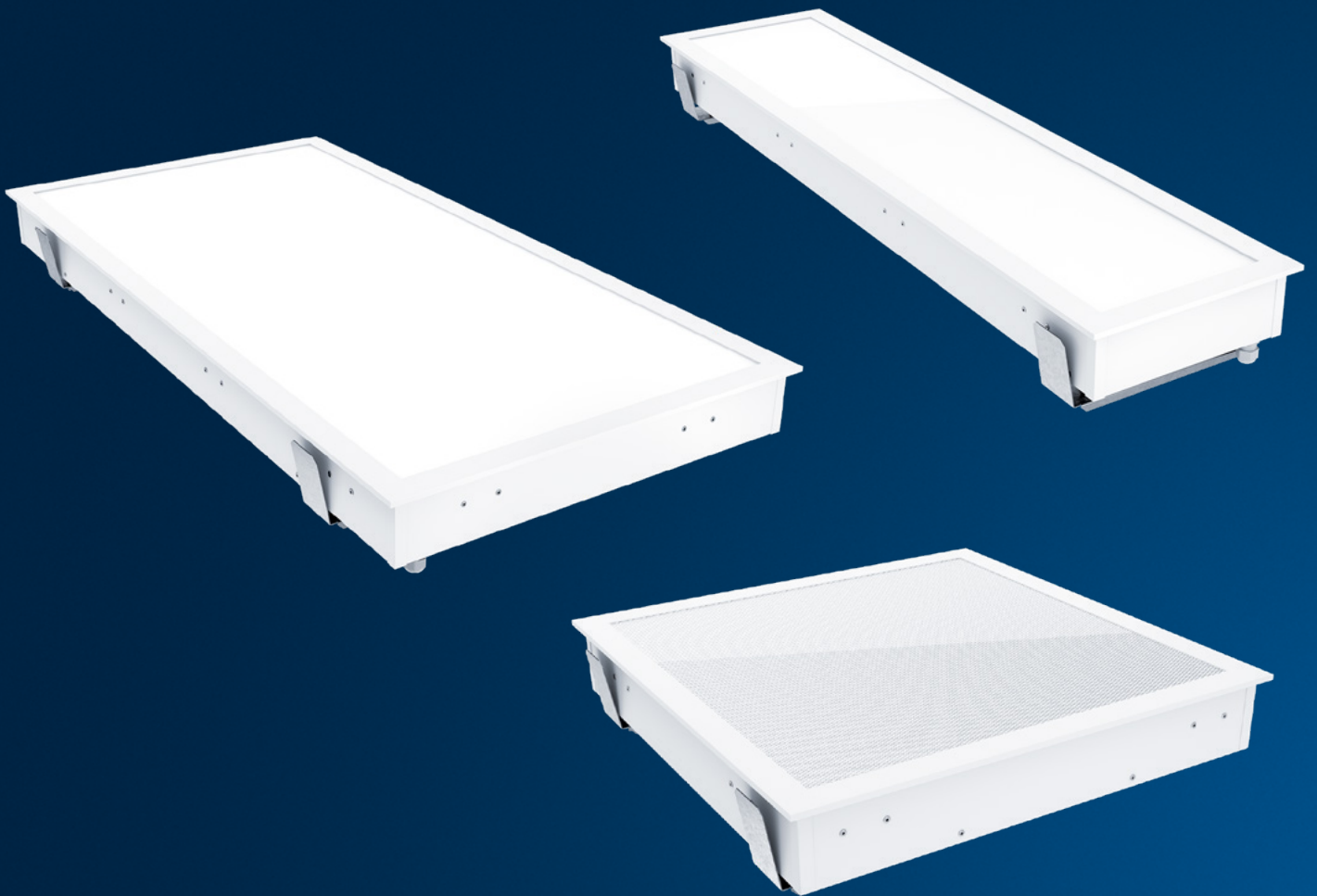


For environments where visual comfort is essential, Invincible is available with a toughened glass cover and microprismatic optic, achieving a Unified Glare Rating (UGR) of < 19*, making it ideal for task-intensive settings

*Dependant on luminaire size and lumen output. Technical data available on website.



CHOOSE THE RIGHT INVINCIBLE PANEL



TAILORED TO YOUR ENVIRONMENT

Invincible panels are available in three versatile sizes of 600 x 600, 1200 x 300, and 1200 x 600 mm, making them suitable for a wide range of cleanroom ceiling configurations.

Choose the right cover for your application:

Toughened Glass: Ideal for healthcare and pharmaceutical settings where chemical resistance and easy cleaning are essential

TP(a) Rated Polycarbonate: Perfect for food and beverage production, offering impact resistance and compliance with HACCP standards

Whichever option you select, you'll benefit from a high-performance, back-lit LED panel built for durability, hygiene, and long-term reliability.

INGRESS AND IMPACT PROTECTION



BUILT TO WITHSTAND THE TOUGHEST CONDITIONS

Invincible is engineered for environments where resilience is essential. Its high ingress protection rating - **IP65 at the front** - ensures complete dust-tight sealing and resistance to jets of water. **IP54 at the back** protects from water sprays from all directions as well as limiting dust ingress. An integrated **antibacterial foam seal** between the frame and body further safeguards the luminaire's interior, supporting strict hygiene protocols.



When it comes to durability, Invincible doesn't compromise. With **impact protection up to IK09** (polycarbonate) and **IK08** (glass), it can withstand up to **10 joules of force** - equivalent to a 5 kg hammer dropped from 20 cm. This makes it ideal for high-traffic, high-risk areas such as hospitals, laboratories, and industrial food facilities.

IP54 RATING (BACK)



IP65 RATING (FRONT)



EXCEPTIONAL COLOUR ACCURACY

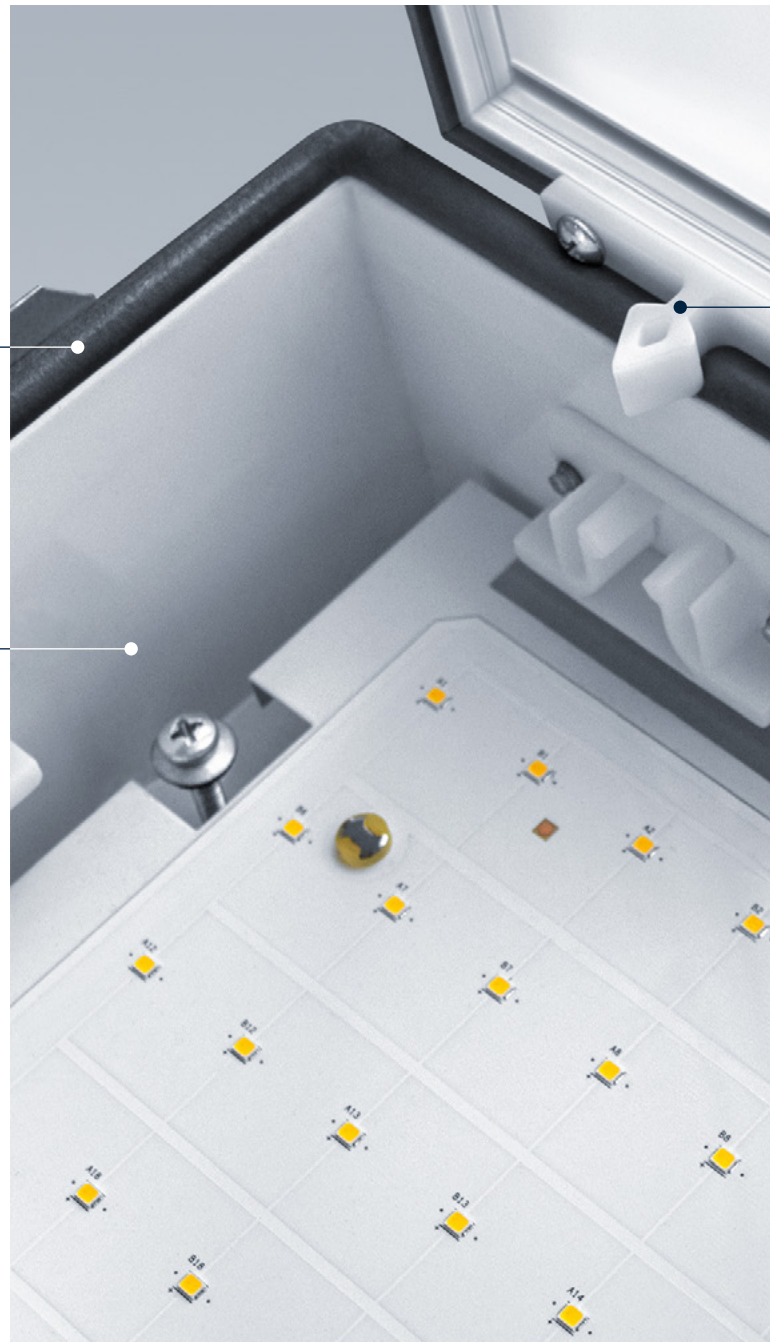
With high-quality LED chipsets offering **CRI 80 and CRI 90 with enhanced R9 red rendering**, Invincible ensures accurate colour reproduction. This is especially critical in healthcare, where distinguishing subtle variations in skin tone can be vital during diagnosis and surgery.

ENGINEERED FOR PRECISION, DESIGNED FOR PERFORMANCE

Invincible is more than a simple LED panel - it's a precision-engineered solution for environments where every detail matters.

Antibacterial foam seal between frame and body helps to maintain the high IP65/54 ingress protection rating

A robust sheet steel body provides structural integrity





Frame retention clips help to seal the outer frame onto the body, ensuring a tight and durable fit

Screwless outer aluminium frame eliminates dirt traps, supporting strict hygiene standards

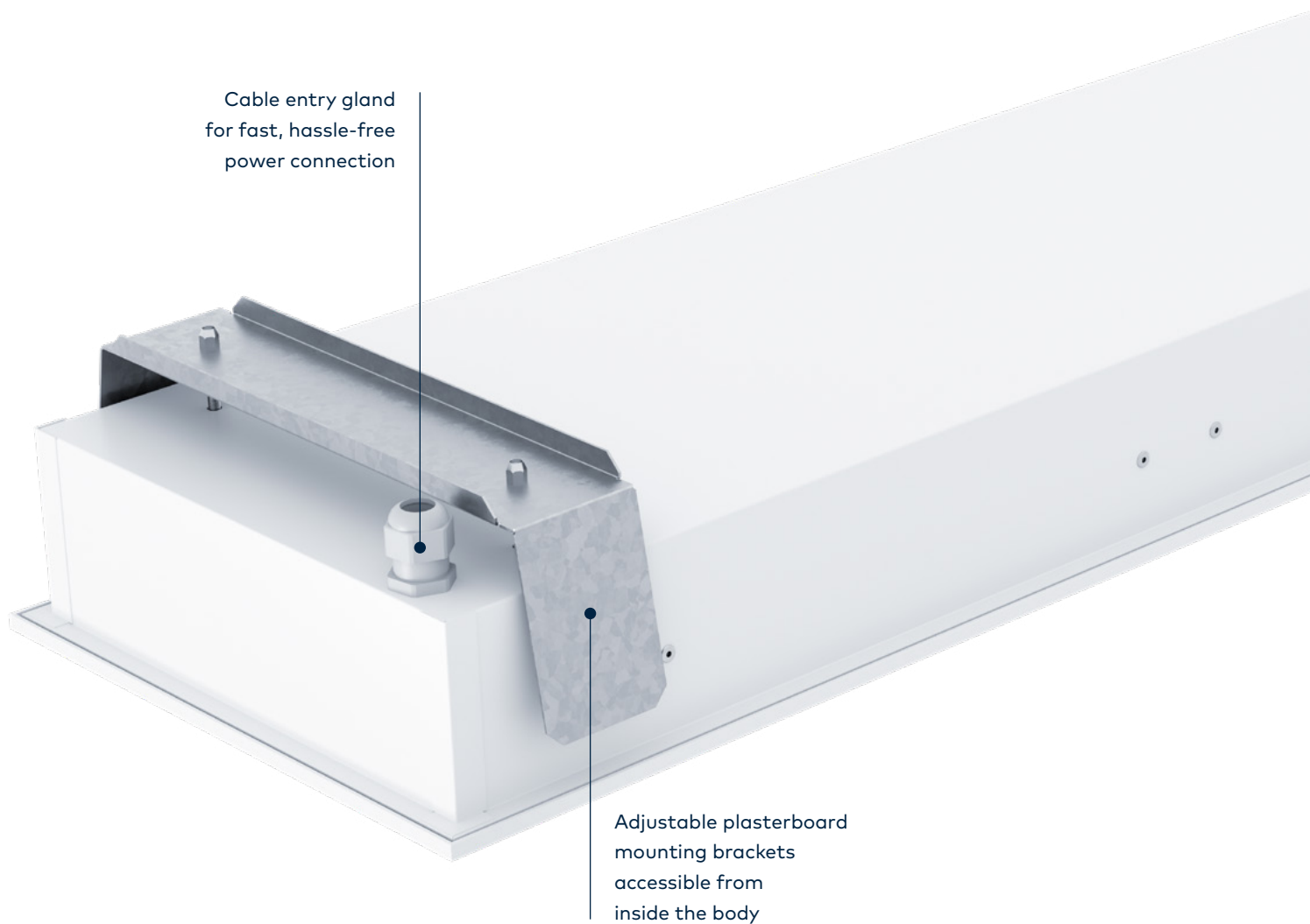
Cover retaining wires ensure safe, secure access during maintenance

High-quality LED chipset CRI 80 and CRI 90 with high red (R9) content crucial in health and care

EASY INSTALLATION

Invisible is designed with installers and facility managers in mind. Whether you're working with plasterboard or recessed ceilings, installation is quick and straightforward.

Plasterboard mounting edges to support the brackets are supplied to aid installation.



Cable entry gland
for fast, hassle-free
power connection

Adjustable plasterboard
mounting brackets
accessible from
inside the body

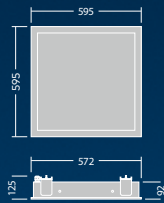
SUSTAINABLE MAINTENANCE

When it comes to maintenance, Invincible makes it easy. The LED motherboard and driver are modular and easily replaceable – minimising downtime, extending product lifespan, and supporting your sustainability goals.

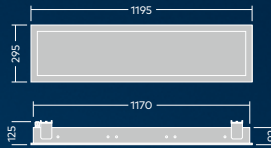


Trusted in environments like semiconductor manufacturing, Invincible is the go-to solution where cleanroom compliance and operational efficiency are critical.

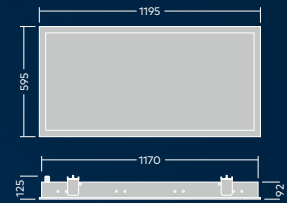
INVINCIBLE



600 X 600



1200 X 300



1200 X 600



Tempered glass cover with microprismatic or opal optic
Opal polycarbonate cover TP(a)



4000 K



3500 - 14,500 lm



Up to 132 lm/W (CRI 80), Up to 117 lm/W (CRI 90)



80, 90



Microprismatic Glass: UGR < 19-22
Opal Glass and Opal Polycarbonate: UGR < 22-25



IP65/54 (Front/Back)



-25 °C to 50 °C
0 °C to 30 °C (Emergency version)



IK09 (Polycarbonate cover), IK08 (Glass cover)



C4



L80 72,000 h @ 25 °C



Plasterboard and recessed lay-in ceilings, Suction Cup accessory required for installation and maintenance (SKU: 20935455)



White body and frame



Fixed Output (HF), DALI dimmable (HFIX)



3 hr manual test LiFePO4 (E3), IEC 60598-2-22 (DALI driver)



MacAdam 3

- Certified by the Fraunhofer Institute – Suitable for use in clean rooms of cleanliness class 1 to 9 as per DIN EN ISO 14644-1
- HACCP International certification (PC version)



*In progress



As a globally leading luminaire manufacturer, Thorn Lighting provides a five-year warranty for its complete product range within all European Countries.
thornlighting.com/guarantee

Thorn Lighting is constantly developing and improving its products. All descriptions, illustrations, drawings and specifications in this publication present only general particulars and shall not form part of any contract. The right is reserved to change specifications without prior notification or public announcement. All goods supplied by the company are supplied subject to the company's General Conditions of Sale, a copy of which is available on request. All measurements are in millimetres and weights in kilograms unless otherwise stated.
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