



Kaynemaile Mesh is a patented, world-leading innovation. With over 60 years of polycarbonate material science and research to call on we know our mesh inside out. We’ve undertaken extensive laboratory and field tests to ensure our product range works and we keep testing it everyday. We think the benefits of our product are extraordinary.

At a glance

Technical Specifications

Material	Engineering grade polycarbonate, fire and UV resistant
Visual open area	Approximately 25%
Physical open area	Approximately 70%
Weight	0.6 lb/ft ² (3kg m ²)
Maximum sheet size	Unlimited height and width
Screen thickness	0.6" (15mm)
Color customization	Available (additional costs may apply to small orders)
Diameter of ring	0.8" internal (22mm), 1.10" external (28mm)

Technical benefits



Simple Attachment Systems

Our attachment methods for both exterior and interior systems are simple and based around two systems that utilise tube and hooks or a low-profile track. Even our custom projects are based around these simple attaching systems. [For fixing details, contact us.](#)



Unbeatable Strength

Our mesh is made from the highest performing thermoplastic. It is extremely robust and impact resistant and thermally stable from -40°F up to 248°F (40°C up to 120°C).



Lightweight

Our mesh is stronger and lighter than glass. It weighs 0.6lbs per square foot (3kg m²) making it a perfect choice where a low static load on buildings is required. Plus our light weight makes handling on site easy.



High Airflow

Our mesh gives high airflow through the cross sectional open area. This means air compliant movement can be maintained in interior spaces and exterior screens.



Fire Resistant

Kaynemaile mesh is compliant with 2018 IBC section 2606 “Light transmitting plastics” achieving a CC1 classification. Kaynemaile mesh has also achieved a Group 1s in the AS/ISO 9705 room test (similar to a Class A in the NFPA 286 room corner test) with a SMOGRA of 0.5m²/s²; ASTM D 2843 smoke index of 70.9°, ASTM 635 HB-CCI and NFPA 701-pass; UL94 FR-V0 material at 3mm that is rated self-extinguishing. [Contact us for specific information for your location.](#)



Solar Protection

Kaynemaile mesh significantly reduces both radiant heat through direct sunlight (EMR) and thermal conductive heat from entering the interior of a building by up to 70%. This gives you the ability to let daylight in and manage the passive solar gain—all while maintaining visual transparency.



Weather Protection

Our mesh system acts as an effective wind and rain screen due to its cross-sectional density. For added protection, a second skin of mesh can be utilised which effectively limits the through penetration.



Efficient Installation

Kaynemaile mesh is lightweight (3kg per square metre) and goes up fast, cutting down the install time dramatically and saving costs. Our fixing systems are simple and we don't need the same level of sub-frame as metal products. This means our installed rate is more cost effective than metal or glass panel products.

Mesh Performance Testing

Test	Result
Sunlight (UV) and exterior weathering	<p>UV stabilised Makrolon Polycarbonate.</p> <p>Independently lab tested by Building Research Association of New Zealand (BRANZ).</p> <p>Results show minimal structural/tensile deterioration of the mesh after 2000 hours of continuous testing in New Zealand's harshest UV conditions—some of the toughest in the world.</p> <p>All colours are light fastened, mineral-based pigments to maintain colour and recyclability. Real world full external exposure testing after 8 years, shows 95% original strength.</p>
Tensile strength and impact resistance	<p>Note: The accumulated strength of seamless mesh increases proportionately with the size of the panel.</p> <p>Astron burst testing with a point load area of approx. 32mm (1.5") on small 140 x 140mm (5 1/2" x 5 1/2") samples show a peak resistance of 279kg (615lb).</p>
Drag coefficient (used for calculating wind loadings)	<p>$C_d = 0.8$, which is 40% less than an equivalent two-dimensional or woven mesh.</p> <p>Full wind tunnel test results for all angles available.</p>

