pelican systems

suspended ceilings





Suspended ceilings make use of an Exposed Grid System (econogrid) into which you can use a variety of ceiling tile options ranging from Accoustic Mineral Fibre tiles, to econotiles our gypsum vinyl clad tile, or even econocal and econotherm which are calcium silicate tile options.

The advantage of suspended ceilings is in their ability to create an aesthetic interior finish while concealing and allowing access to all the services that make an interior space function practically including lighting, sound, security and air-conditioning or heating systems.

Pelican Systems offers the full system for a suspended ceiling including the grid (econogrid), suspension options and a variety of ceiling tile options depending on the requirements of the space.

There is a choice of perimeter wall trims including a shadowline option, as well as a number of specialised trims and all of the required fixings and accessories for a successful ceiling installation.



exposed grid for suspended ceilings

The advantage of suspended ceilings is in their ability to create an aesthetic interior finish while concealing and allowing access to all the services that make an interior space function practically including lighting and air-conditioning and if required optimising acoustics as well.

econogrid is designed to meet the most stringent requirements for modern day's complex buildings and is suitable for any suspended ceiling application including offices, retail outlets, hospitals, schools, hotels and restaurants.

Features and Benefits

- High quality hot-dip galvanised steel with pre-painted capping ensuring effectiveness against corrosion and high light reflectance properties
- · Positive lock coupling mechanism with an audible click
- · econogrid can be disassembled and reused
- Stepped end cross tees that prevent tee rotation
- Mid-span deflection not exceeding 1/360 of the span length
- Main Tee includes a fire safety feature (see additional information below)
- · Main Tees are punched at 100 centres to facilitate versatility for all tile sizes

econogrid 24mm x 38mm (including fire safety feature)

Description	Size (m)	Qty / Box	Mass / Box (kg)	Coverage (m ² / Box)	Boxes / Pallet	Qty / Pallet	Mass / Pallet (tons)
Main Tee	3.6	20	24.11	82	105	2100	2.50
Cross Tee	1.2	60	21.18	43	50	3000	1.10
Cross Tee	0.6	60	10.65	43	90	5400	1.00
Wall Angle 24 x 19 x 0.5 mm	3.6	40	27.16	144 lm / Box	92	3680	2.80
Shadowline Wall Angle 24 x 20 x 20 x 13 mm	3.6	30	35.24	108 lm / Box	67	2010	2.50



Recommendations for Installation

Being part of the decorative finish, the installation of the ceiling needs to take place after services are installed to avoid interference and damage to the grid, especially the white chromodek face. It is advisable to limit the amount of time the grid is stored on site, and ensure that the area is clean and dry.

Fire Safety

econogrid Main Tees include a fire punch out as an additional safety feature to facilitate a more controlled collapse of the ceiling in the event of a fire. The punch-out allows expansion of the Main Tee during a fire which prevents econogrid from twisting, bending or bowing unpredictably and enables the econogrid system to tighten and remain intact limiting any collapsing of the ceiling tiles and the creation of gaps in the perimeter thereby assisting in the containment of the fire.

Bill of Quantity Specification

Supply and install Pelican Systems econogrid consisting of econogrid Wall Angle (standard / shadowline) fixed to the perimeter wall using fixings at 400mm centres. Space econogrid Main Tees at 1200mm centres. Suspend Main Tees using 2.5mm thick pre-stretched Galvanised Hanger Wire or 19mm Hanger Strap at 1200mm centres. Galvanised Hanger Wire shall be put through the Main Tees hole and wound three times around itself. Two Steel Pop Rivets or one 13mm Wafer Tek Screw shall be used to fix the Hanger Strap to the Main Tees bulb.

Install econogrid Cross Tees (1200mm long) at 600mm centres to create a 1200 x 600mm ceiling grid.

Install econogrid Cross Tees (600mm long) into the 1200mm long cross tees to create a 600 x 600mm ceiling grid. Main tee should be fixed to the wall using angle cleats.

All installations to be done in accordance with SABISA guidelines. Specifications are available on Autospec and our website.

Pelican Systems has had an ISO 9001 Quality Management System in place from 2005 to 2020. A full list of stockists is available on the Contacts Page of our website.



foil back gypsum ceiling tile

econotiles are widely used in suspended ceiling applications due to their cost effectiveness and performance.

Whilst there are still certain areas that prefer using the 12mm tile, the 9mm tiles have proved their capability over the years and are the most popular thickness in the market today.

Features and Benefits

- · Foil backing to increase thermal resistance, reduce water penetration and improve noise reduction
- · Encapsulated (taped) edges llimits water penetration, ensures a longer life span and minimises gypsum dust
- · Directional arrows on foil backing facilitates directional installation and improved overall aesthetic
- · Tiles are non-toxic, non-combustible and resistant to humidity

Test Item	Test Result
Acoustics	NRC 0.509
Thermal Resistance	0.25(m ² .k)/W
Fire Classification	Class B/B1/2
Encapsulated Edges &	No cracks, no fragments, no warps, no distortions, no broken edges & corners that have bad effects
Appearance Quality	on its usage and appearance
Bulk Density	7.7 kg/m ³
Moisture Content	1.4 %
Flexural Load	169N

Product and Stocking Information



White

Packing Details:

9mm

Sizes	Average Kg / Tile	Tiles / Carton	Carton / Pallet	Tiles / Pallet	Average Kg / Pallet incl pallet	m ² / Pallet
1200 x 600	4.20	8	50	400	1680	216
600 x 600	2.15	8	100	800	1720	216

12mm

Sizes	Average Kg / Tile	Tiles / Carton	Carton / Pallet	Tiles / Pallet	Average Kg / Pallet incl pallet	m² / Pallet
1200 x 600	5.40	6	50	300	1620	288
600 x 600	2.70	6	100	600	1620	288

9mm White, Black or Fissured

600 x 600 and 1200 x 600

12mm White

600 x 600 and 1200 x 600

Recommended Tools for Installation

econotile can be cut with a scoring knife, circular saw or hand saw. Holes can be made with a hole saw.

Fire Performance Classification for Buildings: SANS 428:2012 (10177-5 & 10177-10)

The econotile ceiling system as tested did not propagate flaming during the standard SANS 10177-10 test.

The material is classified as combustible in terms of SANS 10177-5:2012.

The overall classification of econotile in terms of the SANS specification is therefore: CLASS B/B1/2

Bill of Quantity Specification

Supply and install Pelican econotile foil back ceiling tiles with (white) or (fissured) or (black) vinyl face finish, size (600 x 600 x 9 or 12mm) or (600 x 1200 x 9 or 12mm) laid on Pelican econogrid exposed suspension ceiling grid system with pre-painted white capping, ceiling perimeter to be finished with pre-painted (Standard) or (Shadowline) wall trim. Hold down clips may be used to hold the ceiling tiles firmly in position. Suspension shall be in accordance with the manufacturer's recommendations and to include all necessary hangers, sub grid and fixings.

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econocal

for moisture resistant ceilings

econocal ceiling tiles are produced from calcium silicate and are an extremely strong and durable tile which resists moisture and is ideally suited for ceilings in areas exposed to high humidity as well as hygiene sensitive areas. econocal tiles have a fire classification of A/A1/1 meaning they are non-combustible and there are no limitations as to where they can be used.

econocal ceiling tiles have a white vinyl face and an aluminium foil backing, as well as encapsulated edges which further enhance the tiles inherent properties.

econocal tiles are 100% humidity resistant..

Features	Benefits
Manufactured using incombustible raw materials	The product will not burn
Excellent fire resistant properties	Flame spread is reduced and no smoke or poisonous gas is produced
Resists moisture without degradation	Ideal for wet areas eg: bathrooms, kitchens and non-airconditioned areas
	which have high relative humidity
Low co-efficient of expansion and contraction	Systems installations improve efficiency of air conditioning thereby lowering
	long term running costs
Composition and hardness	Particle emission is greatly reduced
Hardened Tile Edges	Offers extra strength and reduces risk of breakages
Stable and durable	Resistant to buckling, cracking and sagging even under adverse
	environmental conditions

Safe & suitable for all types of commercial applications

Hospitals, Schools, Industrial Kitchens, Clinics and any areas exposed to high humidity and hygiene sensitive areas. Preferred specification for healthcare facilities

Product and Stocking Information



100% humidity resistant vinyl clad calcium silicate ceiling tile

white 1200 x 600 x 6mm SE 600 x 600 x 6mm SE 8.33 kg/m²



Packing Details: 10 tiles / 7.2 m² per box / 3.6 m² per box

1200 x 600 - 40 boxes / 400 tiles per pallet | 600 x 600 - 80 boxes / 800 tiles per pallet / Mass per pallet 2.5 tons

Recommended Tools for Installation

econocal can be cut with a scoring knife, circular saw or hand saw. Holes can be made with a hole saw.

Fire Performance Classification for Buildings: SANS 428:2012 (10177-5 & 10177-10)

The econocal ceiling tile as tested did not propagate flaming during the standard SANS 10177-10 test. The overall classification of econocal in terms of the SANS specification is therefore: CLASS A/A1/1

Bill of Quantity Specification

Lay Pelican Systems White econocal (1200 x 600mm / 600 x 600mm) x 6mm ceiling tile into econogrid ceiling grid. Ceiling grid consisting of econo Wall Angle (Standard / Shadowline) fixed to the perimeter wall using fixings at 400mm centres. Space econogrid Main Tees at 1200mm centres and suspend Main Tees using 2.5mm Galvanised Hanger Wire or 19mm Hanger Strap at 1200mm centres. Galvanised Hanger Wire shall be put through the Main Tees hole and must wind three times around itself. Two Steel Pop Rivets or one 13mm Wafer Tek screws shall be used to fix the Hanger Strap to the Main Tees web. Install econogrid Cross Tees (1200 long) at 600mm centres to create a 1200 x 600mm ceiling grid.

All installations to be done in accordance with SABISA guidelines. Specifications are available on Autospec and our website.

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for insulated moisture resistant ceilings

econotherm tiles have an added component of 25mm fire retardant polystyrene applied to the back of the standard econocal tile which improves the thermal resistance of the tile.

Features	Benefits
Manufactured using incombustible raw materials	The product will not burn
Excellent fire resistant properties	Flame spread is reduced and no smoke or poisonous gas is produced
Resists moisture without degradation	Ideal for wet areas eg: bathrooms, kitchens and non-airconditioned areas
Composition and hardness Hardened Tile Edges Stable and durable	Which have high relative humidity Particle emission is greatly reduced Offers extra strength and reduces risk of breakages Resistant to buckling, cracking and sagging even under adverse environmental conditions

Safe & suitable for all types of commercial applications

Hospitals, Schools, Industrial Kitchens, Clinics and any areas exposed to high humidity and hygiene sensitive areas. Preferred specification for healthcare facilities

Product and Stocking Information



100% humidity resistant

white vinyl finish 1200 x 600 x 31mm (6 + 25mm) 9.03 kg/m²



Characteristics	
Humidity Resistance	100%
Fire Classification	CLASS A/A1/2
Density	1.01 g/cm ³
Thermal Resistance	0.7 - 0.8m ² k/w
Impact Resistance	High impact resistance

Packing Details: 4 tiles / 2.88 m² per box 30 boxes / 120 tiles per pallet / Mass per pallet 780 kgs

Recommended Tools for Installation

econotherm can be cut with a scoring knife, circular saw or hand saw. Holes can be made with a hole saw.

Fire Performance Classification for Buildings: SANS 428:2012 (10177-5 & 10177-10)

The econotherm ceiling tile as tested did not propagate flaming during the standard SANS 10177-10 test. The overall classification of econotherm in terms of the SANS specification is therefore: CLASS A/A1/2

Bill of Quantity Specification

Lay Pelican Systems White econotherm 1200 x 600 x 31mm ceiling tile into econogrid ceiling grid. Ceiling grid consisting of econo Wall Angle (Standard / Shadowline) fixed to the perimeter wall using fixings at 400mm centres. Space econogrid Main Tees at 1200mm centres and suspend Main Tees using 2.5mm Galvanised Hanger Wire or 19mm Hanger Strap at 1200mm centres. Galvanised Hanger Wire shall be put through the Main Tees hole and must wind three times around itself. Two Steel Pop Rivets or one 13mm Wafer Tek Screws shall be used to fix the Hanger Strap to the Main Tees web. Install econogrid Cross Tees (1200 long) at 600mm centres to create a 1200 x 600mm ceiling grid.

All installations to be done in accordance with SABISA guidelines. Specifications are available on Autospec and our website.

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versatility for designer ceilings

Ceilings are increasingly being used as a design feature that draws the eye and creates an impression to enhance the living and working space.

Design features such as Bulkheads, changes of ceiling level and plasterboard perimeters considerably enhance the aesthetic interest of an interior, the interface of building materials however is critical in the overall interior finish.

Our Ceiling Trim range is designed to assist architects, designers and ceiling specialists with solutions that allow the opportunity to create interesting features with crisp clean interface details for suspended and plasterboard ceiling installations.

Features and Benefits

The precise alignment between sections

- · No risk of cracks or uneven gaps at the junction of the wall and ceiling
- · Perfectly true lines
- · Powder coated white finish as standard
- · Pre-drilled profiles improving efficiency and costs on site

Profile Name	Dimensions (mm)	Length (mm)	Shadow off the Wall (mm)	Ceiling Drop (mm)	Ceiling Application
PS1	20 x 20	4000	20	20	Suspended
PS2	25 x 20	4000	25	20	Flush Plastered
PS35	35 x 35	4000	35	35	Flush Plastered
PS3	45 x 20	4000	45	20	Flush Plastered
PS4	45 x 45	4000	45	45	Flush Plastered
PS100	100 x 100	4000	100	100	Flush Plastered



PS1 Shadowline Wall Trim

An aluminium profile designed to create a 20 x 20mm Shadowline between an exposed suspended ceiling and the perimeter wall.

Aluminium Shadowline Trim Profiles

Aluminium profiles designed to create a Shadowline between a concealed ceiling and the perimeter wall using JUMBO® Plasterboard.













Shadowline Profiles add a great sensation of height and space, the clean geometric lines and recessed shadows accentuate a feeling of spacious upmarket style.

Steel Shadowline Plaster Trim

A steel profile designed to create a Shadowline between a concealed ceiling and the perimeter wall using JUMBO[®] Plasterboard. Available for 7mm, 9mm or 12mm JUMBO[®] Board.



Plaster Ceiling Junction

An aluminium profile designed to facilitate the transition between an exposed suspended ceiling and a flush plastered ceiling both on the same level with a reveal being created between the two types.

The Plaster Ceiling Junction can provide an attractive feature to a suspended ceiling and minimises the need for cut tiles. This solution is particularly effective for irregular perimeters, corridors and small cellular spaces with existing structural walls.



Apex Trim

An aluminium profile designed to facilitate the junction between two raked ceilings.



Facia Trim

An aluminium profile designed to facilitate a vertical bulkhead at the edge of a suspended ceiling, especially against windows.



Plaster Curve Trim

An aluminium profile designed to facilitate a radius wall with a flush plastered ceiling. Used with 16mm radiused Supawood to create a Shadowline on the perimeter.



Shadow Curve Trim

An aluminium profile designed to facilitate a radius wall with an exposed suspended ceiling. Used with 16mm radiused Supawood to create a Shadowline on the perimeter.

Please visit our website for specification Data Sheets & BIM Files All installations to be done in accordance with SABISA guidelines. A full list of stockists is available on the Contacts Page of our website.



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A full list of stockists is available on the Contacts Page of our website.

Find us online at www.pelican.co.za or any of these social media sites

