DANSEA
Construction Products

pecaform™

When Speed Counts!

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- LIGHTWEIGHT
- MULTIPLE SHAPES
- VARIETY OF APPLICATIONS

PECAFORM™ *not only* IMPROVES SITE SAFETY *but also* $AVES TIME, CONCRETE & LABOUR!

The formwork of the future is here now!

The innovative solution to conventional formwork Pecaform™ is the result of many years of intensive research and development overseas. The basic material consists of a steel wire mesh with a heat-shrunk layer of polyethylene applied to both sides of the mesh.

This combination creates a material that is both light and structurally strong, making it extremely easy to handle.

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Pecaform™ Benefits

Preformed

Pecaform™ is pre-formed and delivered to site ready for assembly or it can be simply folded on site using a manual folder.

High Speed Formwork

Pecaform™ is designed for fast assembly. No hammer, nails or saws, just tie-wire.

Easy Installation Procedure

Because is it pre-formed, it is easily assembled using on site labour.

Site Safety

Pecaform™ can provide enhanced site safety by:

- **Back-filling excavations earlier than with conventional formwork**
- **Minimising need for workers to be in excavations**
- **Reducing the heavy labour needed for conventional formwork**
- **Eliminating the need to strip formwork**

Pecaform™ (VR6) STANDARD SHEET SIZES

600 x 2250 mm	900 x 2250 mm	1200 x 2250 mm	1500 x 2250 mm	1800 x 2250 mm	1875 x 2250 mm

Flexible

Pecaform™ is a versatile formworking material perfect for those radius specifications. The strength and versatility of Pecaform™ make it the natural choice for the following applications:

- Ground beams
- Footings and bases
- Pile Caps
- Construction joints (stop ends)
- Special shapes or curves
- Void formation
- Ribbed and waffle slabs
- Penetrations
- Recesses
- Temporary fencing
- Safety screens
- Other variety of applications

Technical Specification

	STANDARD	Other Pecaform™ types AVAILABLE UPON REQUEST		
	VR6 STANDARD	**VR4**	**VR8**	**VR10**
MAIN WIRE SIZE (NOMINAL)	5.5 mm diameter	4 mm diameter	7.5 mm diameter	9.8 mm diameter
MAIN WIRE SPACING	150 mm c/c	100 mm c/c	150 mm c/c	150 mm c/c
CROSS WIRE SIZE (NOMINAL)	4 mm diameter	4 mm diameter	4 mm diameter	4 mm diameter
CROSS WIRE SPACING	75 mm c/c	100 mm c/c	75 mm c/c	75 mm c/c
WIRE SPECIFICATION	High tensile steel of tensile strength 485 N/ mm² - Non Galvanised	High tensile steel of tensile strength 485 N/ mm² - Non Galvanised	High tensile steel of tensile strength 485 N/ mm² - Non Galvanised	High tensile steel of tensile strength 485 N/ mm² - Non Galvanised
GALVANISED CODE	VR6G - Galvanised wire	VR4G - Galvanised	VR8G - Galvanised	VR10G - Galvanised
POLYETHYLENE FILM	0.12 mm thick - One layer each side	0.12 mm thick - One layer each side	0.12 mm thick - One layer each side	0.12 mm thick - One layer each side
POLYETHYLENE COLOUR (*)	Green	Green	Green	Green
WEIGHT	2.64 kg/m²	2.62 kg/m²	3.78 kg/m²	5.69 kg/m²
STANDARD SIZE a) Width b) Height	2250 mm Can be varied according to order requirements	2250 mm Can be varied according to order requirements	2250 mm Can be varied according to order requirements	2250 mm Can be varied according to order requirements

VR6 also available with two layers of 0.12 mm thick polyethylene on each side of wire mesh. Available as VR6D. (*) - Other colours are also available subject to quantity of order.

How strong is Pecaform™?

To demonstrate the strength of Pecaform™ as a formwork system, a sheet of Pecaform™ was bent into a 450 mm square x 1200 mm high form to replicate a form that would be used for a footing. The base was restrained by wood blocks, and three straps were used to hold the form body together. Two reinforcing bars were inserted through opposite sides. The inside of the form was then filled with ready mixed concrete.

As can be seen in this photograph, a minor amount of bulging is evident on the sides, but no other distress to the Pecaform™ is indicated. No leakage is visible, and there is no evidence of leakage at the locations where the reinforcement bars penetrated the sides.

As Pecaform™ is primarily intended as a sub-grade formwork system that is backfilled on the outside of the form before the concrete is poured, bulging of the sides will be negligible, as the sides will be restrained by the backfill.

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Performance Comparison

PERFORMANCE DIMENSIONS	PECAFORM™	CONVENTIONAL (TIMBER/PLYWOOD)	ALUMINIUM/ STEEL FORMWORK	ADVANTAGES OF PECAFORM™
SPEED	Faster	Slower	Medium	• Early completion • Saving in preliminaries cost • Client incentives • Less dependent on weather
INVESTMENT COST	Low	Low	High	• Low investment cost
LABOUR REQUIREMENT	Lower	Higher	Medium	• Less reliance on skilled labour • Lower labour cost
SKILLS	General Workers	Skilled Carpenters & General Workers	Skilled Workers	• Saving in labour cost • Availability > speed
INSTALLATION	Light & easy	Tedious & Time Consuming	Simple but skilled labour required	• Save time • Saving in labour cost
DEBRIS REMOVAL	Not required	Required	Not required	• Saving in debris removal cost • Save the environment/forest
LIFTING DEVICE/ CRANAGE	Man handled	Cranage required	Cranage required	• Smaller storage space • More working space
STORAGE REQUIREMENT	Minimum	High	High	• Saving in machinery/cranage cost • Saving in operator cost
FORMWORK REMOVAL	Not required	Required	Required	• Save time
ENVIRONMENTAL ACCEPTANCE	Environmental friendly	High rate of timber consumption & burning	Environmental friendly	• Enhance corporate image • Complies with legislation • Save the forest
SITE CLEANLINESS	Neat and clean	Untidy, dangerous and hazardous	Neat & clean	• Enhance site safety • Enhance corporate image • Improve productivity
CORPORATE IMAGE	Excellent	Poor	Good	• Enhance corporate image

Method Of Application - Pile Cap & Bases

1. *Apply lean concrete blinding after pile cap excavation.*

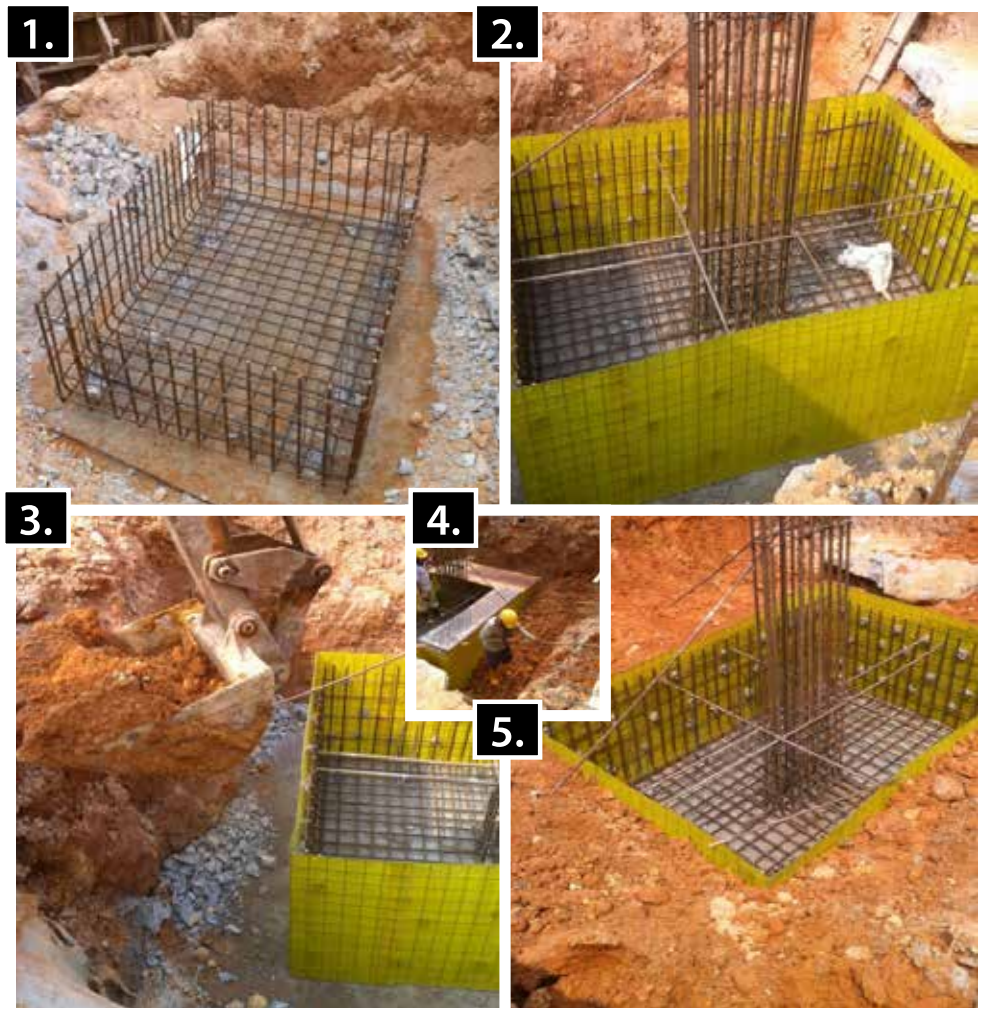
2. *Fix reinforcement cage and provide the necessary spacing from the blinding to allow for the concrete cover.*

3. *Place Pecaform™ around perimeter of pile cap after strategically securing strips of long spacers or equivalent.*

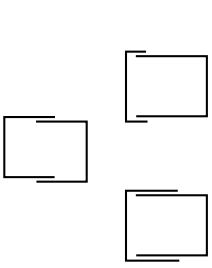
4. *Backfill excavation up to 150 mm from the top of the Pecaform™ to avoid contamination.*

5. *Pour and vibrate the concrete in accordance with good concreting practice.*

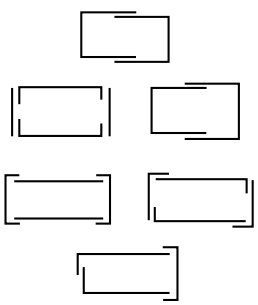
6. *The Pecaform™ remains in the ground.*



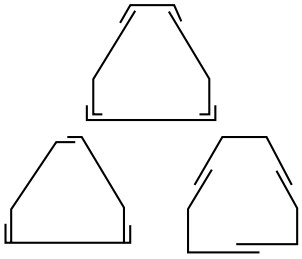
Typical layouts for different pile cap configurations



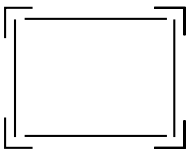
Single Pile



Double Pile



Triple Pile



Multiple Pile

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Foundation - **Bases**

Bases can be constructed from either **L-shapes** or **flat strips of Pecaform™** similar to either beam or pile cap construction. Lean concrete blinding is applied in the traditional manner, and the reinforcement cage complete with spacer blocks at the bottom is lowered onto the blinding.

Pecaform™ is then placed against the side of the cage and spaced off the reinforcement with strips of long spacers, bar chairs or equivalent.

Backfill excavation up to 150 mm from the top of the Pecaform™ to prevent contamination.

Beam **options**

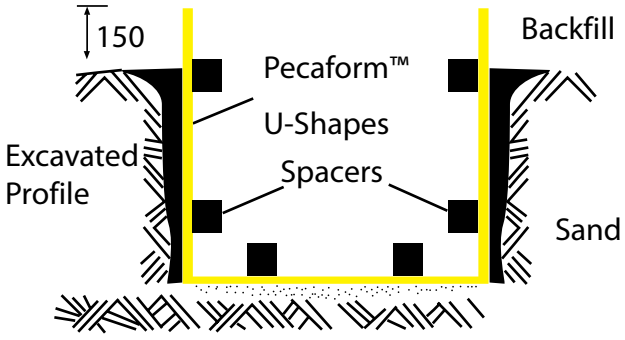
Ground beams can be divided into two categories:

1. Suspended Beams *(on piled foundation)*

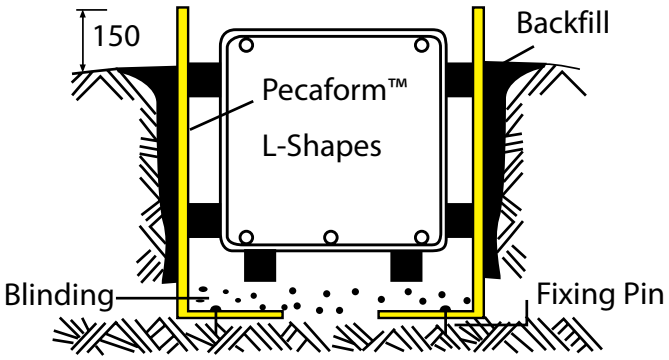
The ground on which the beam is constructed should be capable of safely supporting the weight of the wet concrete during construction. Only nominal surface compaction is required and a thin layer of sand blinding to level the formation and bed-in the beam soffit may be necessary.

2. Ground Bearing Beams

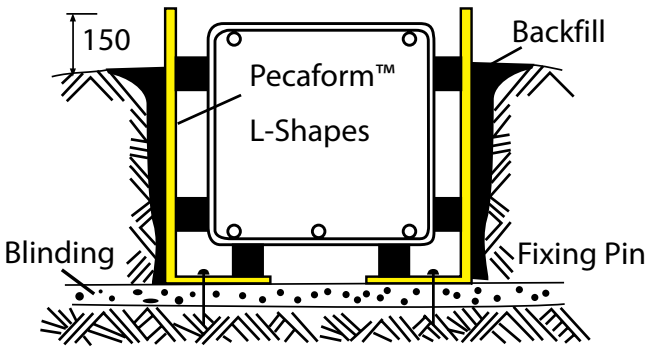
These are founded in the bearing strata. Therefore, a thin layer of sand may be used as blinding to bed-in the Pecaform™. Unless supported independently, Pecaform™ relies on backfill to counteract the pressure exerted by the concrete pour. Suitable spacers attached to the reinforcement cage ensure the beam profile is maintained.



U-Shapes



L-Shapes below blinding



L-Shapes above blinding

Support **Techniques**

Girders

For beams and footings up to and including 1.5 m in depth, where the Pecaform™ formwork is required to be re-used several times, the fastest and easiest technique is the girder system. This consists of a system of tie rods and girders strategically placed to give rigidity to the system during concreting. A simple locking mechanism at each end of the tie rod is designed to lock or unlock the girder and Pecaform™ with great ease and speed. The Pecaform™ girder system for foundation formworking consists of:

- Pecaform™ VR6
- Tie rods and locking nails

The Pecaform™ foundation formworking system represents the most economical alternative to conventional formwork.

Progressive Backfill Method

Pecaform™ is supplied in U-Shapes for beams and pre-formed strips for footings to form the required profiles. These are assembled on the blinding, wired together, and lined up. Placing approximately 200 mm of backfill against the Pecaform™ stabilises the material prior to the concrete pour.

Backfilling should continue together with the concrete pour to counteract the increasing pressure on the Pecaform™ as the level of the concrete pour rises. Backfilling is required up to within 150 mm from the top of the beams and footings to avoid contamination.

Spacing timbers are recommended to maintain the beam width, but once the pour reaches the top of the Pecaform™ these should be removed to allow vibrating and surface finishing of the concrete.

Construction Joints

Pecaform™ is a suitable material for construction joints. Depending on the depth of concrete to be retained, support methods may vary.

Massive foundations such as those used for high rise buildings have many construction joints.

Pecaform™ provides a tearproof formworking membrane which allows starter bars to be fixed in position without drilling. The timber joist bracing for the Pecaform™ will also act as a support for the reinforcement.

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The **Pecaform™ Service**

Our Service

Using Pecaform™ is simple and easy. We conduct briefings and seminars at our premises or yours, where users learn to calculate configurations and costs of using Pecaform™.

1. **a)** General foundation layout of project

b) Beams schedule showing sizes and levels

c) Column sizes at foundation level

d) Pile cap sizes and levels

2. **a)** Soil type

b) Water table level

3. Construction method and program for earthworks, piling, pile caps, ground beams, ground slabs, basement walls, etc.

DANSEA Construction Products offers an unrivalled service. From the initial enquiry to on-site support we are at hand to assist in the initial installation of Pecaform™, as well as offer advice on the techniques and procedures required to achieve the best results.

Pecaform™ formwork can be delivered to site pre-formed and/or cut to size. The standard lengths of 2.25 m can be cut in multiples of 150 mm while the widths are cut in multiples of 75 mm. Larger sizes can be made on request.

Pecaform™ **Projects**

- 333 Ann St, Brisbane, QLD
- Burleigh Heads Viewing Platform, QLD
- Port of Brisbane, QLD
- Power Pylons, Tingalpa, QLD
- Burnett Dam Wall, Central QLD
- Cabarita Beach Hotel, Northern NSW
- Burswood Towers, Perth, WA
- Q1, Gold Coast, QLD
- Lee Wharf, Newcastle, NSW
- Airport, Brisbane Rail, QLD
- Wind Farms, WA & VIC
- Australian Quarantine Inspection Service Building, Brisbane, QLD
- Bunnings Distribution Warehouse, Camelia, NSW
- RSL Menora, Perth, WA
- Bayview Apartments, Port Melbourne, VIC
- Perth Convention Centre, Perth, WA
- Hillsdale Shopping Centre, Hillsdale, NSW
- Pine Rivers Bridge, Bruce Highway, QLD
- Rainbow Beach Resort, QLD

Distributed by:

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