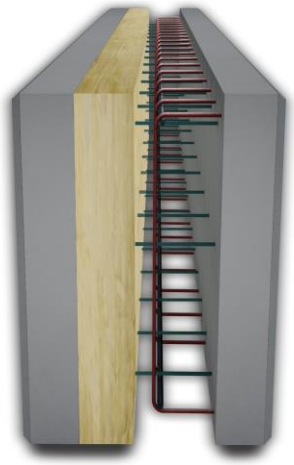
- ## Product Name

Precast [Insulated] Ground Beam [300mm – 400mm thick]

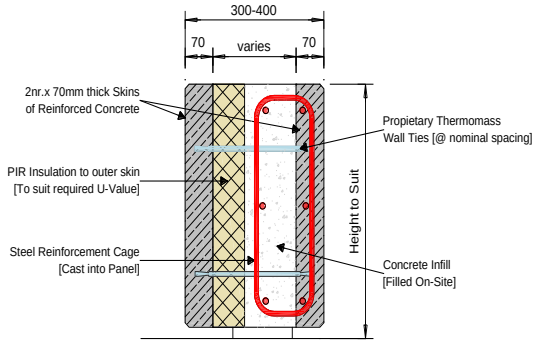


- ## Product Description

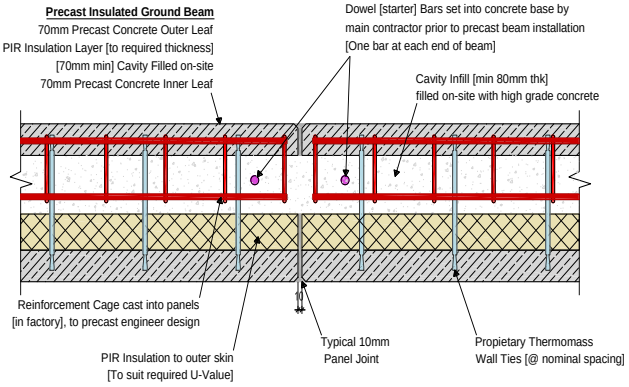
The Keegan Precast Ltd Insulated Ground Beam system is designed in reinforced concrete. The beam section consists of a 70mm rein forced outer skin of concrete, an 80-180mm layer of insulation, a min 80mm void and a 70mm inner skin.

The beam will handle and be erected exactly as a standard Twinwall Beam with all 'Tie' details as for twin wall. The 80mm void will be filled on site to achieve the full monolithic construction of the reinforced concrete beam. The insulation will give a U value of 0.25 W/m²K. Minimum beam thickness will be 300mm. Thicker beam sections and higher U Values can be accommodated on request.

- ## Manufacturing



Typical Vertical Section thru Beam



Typical End Connection at Conc. Base

All of the necessary beam cage reinforcement required for the wall to work in its final case is cast into the wall panels in the factory. The beam section arrives on site as two 70mm concrete panels with a layer of insulation cast in between the skins. The skins are held together by the pultruded carbon fiber [Thermomass] ties to provide a gap of not less than 70mm. Single panel sizes will be up to a maximum height of 3.0m and length of 7.0m with larger panels being designed and manufactured on an individual basis. Beam elements up to 9m can be accommodated. Exact length and section size would be advised on individual basis as the beams are bespoke to suit each situation/project.

A further limit of the panel size is the maximum bar size able to be placed automatically during the manufacturing process. This is 14mmØ. Designs carried out are therefore subject to this upper limit of bar size. Finished Panels will have a standard steel mold finish of Class C (Paint ready). All exposed edges have a 10x10mm chamfer.

- ## Site Erection

On site the Precast Insulated Ground Beam units are lowered over dowel bars set into the concrete base. Placement of these bars is by the main contractor and must be agreed and coordinated with Keegan Precast Ltd. To ensure the correct placing and aligning of the twinwall, a gap of 10mm is detailed between the units in all cases. This joint will remain once the units have been placed and concreted. The core is then filled with an approved high grade concrete and will be filled up in meter lifts. The first meter is poured and vibrated to fix the panel to the dowel bars.