



Polysec Coldrooms Limited
 Blackpole Trading Estate West
 Hindlip Lane
 Worcester, WR3 8TJ. UK.

POLYURETHANE (PUR) MODULAR WALK-IN COLDROOMS

GENERAL NOTES - JANUARY 2004

FAX No (01905) 754137

 (01905) 458551

Modular coldrooms are generally constructed utilizing a factory formed locking corner panel, together with a combination of wall panel widths to give a predetermined coldroom size.

The proposed site location for all coldrooms is required flat & level. If the sub slab is concrete then this should be a float finish and not tamped. Overall nominal external dimensions of the coldroom will require a minimum of plus 50mm to build.

Standard internal heights of 2.000, 2.200 & 2.400m, together with custom heights of up to 4.000m (external) are available.

Corner & wall panel width combinations allow plan dimensional flexibility with 100mm size increments, starting with a plan dimension of 1.200m x 1.200m and every 100mm thereafter. Although the most economic costings are achieved at multiples of 1.200 mtrs.

Ceiling panels are single span and self supporting, walk on for maintenance purposes only and not intended for storage. Any storage above should be via an independent mezzanine floor designed for the purpose. The thickness of the ceiling panel varies to suit the required span, ceiling panels usually span the short dimension of the coldroom. Maximum ceiling panel span is 6.500m utilizing a 125mm thick panel. (Multiple bayed ceilings are available utilizing a drop hanger support system dropped off an existing steel portal frame or specifically designed support system.)

Insulation thickness to walls is 75 or 100mm thick polyurethane (PUR).
 Insulation thickness to ceilings is 75, 100 or 125mm thick polyurethane (PUR).

Floor insulation - general guide lines	fruit & veg -	floorless chill - no floor, 5/10°C
	meat & fish -	chiller with floor, -5/+5°C
	freezer -	with floor, -20/-18°C

Modular panel insulated floors are generally maximum panel length 3.600m, floor panels up to 6.400m can be manufactured, however split floors may be easier to handle on site & may require overlay to be laid on site. Modular floors are intended for foot traffic – max. 250 kilo on four soft rubber wheels, usually accessed through a door clear opening of max. 0.900m wide. For pallet operation a wider door clear opening is usually required with an internal concrete floor to accept the heavier pallet loadings. (see concrete floors in coldrooms -schedule for lowering temperature).

Floor heater mats for freezer applications are intended to prevent frost heave penetration to the ground under the coldstore. However they may also be used on a chill or freezer application which is located on say a first floor site to help prevent condensation forming on the underside of the supporting floor. Heater mats are generally utilised where the floor area is in excess of 14 sq mtrs. The heater mat is usually a 25mm thick modular type, however “traditional” screeded & foil types are also used.

Doors are usually located within a wall panel up to a maximum clear opening of 0.900m wide, in excess of this then the door is mounted on a separate facing frame & cut in to the insulated wall at the required location.

Standard panel hinged & sliding door clear openings –	0.600m w x 1.800m h
	0.750m w x 1.900m h
	0.900m w x 1.900m h

Maximum hinged door on face frame -	1.175m m w x 2.000m h
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Sliding doors mounted on face frames -	1.200m h x 2.000m h	1.800m w x 2.400m h
	1.350m w x 2.000m h	2.400m w x 2.400m h
	1.500m w x 2.000m h	2.400m w x 3.000m h

Information is given for guidance only and may change without notice.

Doors for freezer application are complete with heaters to frame & threshold.

Polar grade pvc strip curtains are an option for all doors. Usually 50% overlap, fixed stainless steel rail & hook on strips - either 200 x 2mm or 300 x 3mm.

Pressure relief valves allow variations of internal pressure created between door openings & refrigeration system operation / defrost cycles to equalize with the ambient air pressure. Very often the sweeper gasket fitted to the underside of the door leaf will perform the same function.

Coldrooms located on an external site will require weatherproof protection to the external ceiling.