Foster Tailor-Made Coldrooms

infinitely adaptable, utterly foodsafe

When choosing a coldroom, you need a supplier who will not only design a room to suit your specific needs, but manufacture and install your rooms with the minimum of disruption to your business.

Foster has extensive experience in coldroom design and installation, from small packaged coldrooms for independent caterers, to large multi-suites for hospitals, international hotel chains and top restaurants worldwide. We can configure and supply specialist applications such as food processing, bakery and in-flight catering facilities.

Calling Foster is the simplest way to get the coldroom you need. Just tell us the nature of your business and highlight any requirements: we'll design and install the perfect coldroom for you.

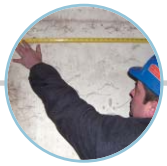
the complete service from start to finish

Expert Advice

With over 35 years of coldroom knowledge, Foster has the staff with the required expert advice. Ranging from knowledgeable sales staff to experienced site supervisors and engineers, Foster's Coldroom Site Services Department can recommend the coldroom and refrigeration equipment for your specific application.

Project Management

From your initial enquiry through to completIon our coldroom commissioning is co-ordinated by our experienced Project Management Team.



Reliable Site Surveys

A Foster site supervisor ensures that your coldroom purchase is professionally time managed from order to planning stage to handover and commissioning.

Expert Site Supervision

Each Project Supervisor will oversee well over 100 projects per year and sit through an induction course and carry out risk assessments on every project. At the time of order, a generic risk assessment and method statement will be issued for the project and if necessary these are then modified to site specific.
If required, Foster site supervisors will attend any regular pre-installation meetings with you and your client to discuss any queries, establish completion timelines and prepare schedules of work to plot and monitor your project.
Each supervisor has attended a SMS Risk Management Course, a further Risk Assessment course at West Suffolk College and have passed the CITB CSCS health and safety test (Construction Industry Training Board-Construction Skills Certification Scheme).
The courses provided them with the skills to Risk Access Site, apply the Method Statement and COSHH requirements.

Method Statements

Method Statements are available as required. Types of Method Statements and Risk Assessments include:
Generic for Coldrooms
Site Specific for Coldrooms
Generic for Refrigeration Installation
Site Specific for Refrigeration Installation

Risk Assessment

With a wealth of experience in the field, our Coldroom team ensure that all installations comply with current CDM Regulations and Method Statements are available as required.

Quality Installation

All installations are carried out by Foster's own highly trained technicians, ensuring fast, hassle-free coldroom erection, with the minimum of disruption to your operation. All teams have passed the CITB CSCS health and safety test and are holders of valid CSCS cards (Construction Skills Certification Scheme). All of the approved sub-contractors are time served with Foster Refrigerator. They sit through approximately 60 site inductions per year and as part of our ISO 9001 approval.

Within the Department we hold on record for all sub contractors the following:

Public Liability Insurance
Employers Liability Insurance
PAT Testing Certificate for any electrical equipment
Certification of Registration for Controlling Waste

Specialist Technology

Our computerised coldroom specification and costing system, Computair allows us to provide a fast response to your initial enquiry, and our fully qualified surveyors will provide on-site support. Rest assured that when you specify Foster you are dealing with the European market leader.

Full Legislative Compliance

Foster Coldrooms exceed all current legislation, providing you with a no-worries, hassle-free storage solution.

build options including door, shelving and refrigeration systems

Semi-rebate Door (standard)

Available in a range of sizes to suit customer requirements.
Door dimensions:
1975 x 900mm (standard)
1975 x 800mm (option)
1975 x 675mm (option)
1975 x 600mm (option)
This door comes complete with handle, hinges and wiper gasket where required

Solo Plus

Wall or ceiling mounted integral refrigeration system
Choice of three different design temperature options available
Choice of capacities
Fully programmable control panel
HFC refrigerant
Tough, hygienic construction

Sliding Door

Ideal for sites with narrow corridors and/or trolley traffic. Widths available from 600mm to 3000mm in 100mm increments.

Duet

Split refrigeration system includes housed condensing unit, unit cooler and separate control panel
Three temperature options
Easy remote operation
Hi/low temperature alarm

Flip-flap Door

For easy access from one room to another. Sizes on application

Unit Coolers

Two designs (8 models) for every application
Capacities from 1000 to 7000 watts
White painted casing
Evaporator temperatures down to -30˚C
Designed for easy installation

Door Options

Door Frame Heaters
Low voltage door frame heaters recommended with all rooms of temperatures below -2˚C or high humidity

Low Voltage Transformer

Door Kick Plates
For further protection to doors

Strip/Air Curtains
Designed to hang over doorways to limit a rise in temperature when the door is opened, particularly suitable when regular access is required

Wiper Gasket
For recessed/ramp options

Door Peep Windows
Lets you see into the coldroom without opening the door (above 0˚C only)

Shelving Systems

Two complementary systems
Wire, slatted, solid or perforated shelves
Free standing shelving options
Hygienic and easy to clean
Anodised aluminium, stainless steel, nylon wire and polymer matt finish available
Mobile options available

Other Coldroom Options

Bumper Bars
Give added protection from trolley traffic on the coldroom interior

Ceiling Support
Coldroom ceiling supports engineered to suit individual building and coldroom designs

Pressure Relief Valves
Recommended on all coldrooms below 0˚C

Double Glazed Windows
For easy stock checking without the need to open a coldroom door

Infill Panels
To finish gaps from coldroom to wall or ceiling and create a clean, safe finish

IceSpy
The perfect solution to the problem of constant food temperature monitoring

Lights
Ceiling lamps available

TECH SPEC 19

tailor made coldrooms

floor recommendations

The right floor is essential to meet individual requirements. Foster can advise on the most suitable floor designs for individual food handling and storage schemes and provide them as part of the project package

- **Modular Floors**
  1.5mm rigidised galvanised mild steel as standard, reinforced option available

- **Floorless**
  Where required the coldrooms can be supplied floorless

  Wall panels are secured to the subfloor by means of a white plastic perimeter channel

  'Altro' type floor covering can be taken through and coved up the base of the wall panels to give an easy-to-clean, hygienic finish as part of a separate contract

- **Recessed**
  Combination of recessed floors can be accommodated with wiper overlap doors as appropriate

- **In situ**
  Where specified, the floor can be supplied in situ.
  Construction consists of a 1000 gauge polythene vapour barrier overlaid with Styrofoam slabs with the joints staggered to give a good thermal barrier.
  The finish is a reinforced granolithic concrete topping trowelled smooth.
  A recessed sub floor will be necessary to allow for level entry
  A heater may also be required (see heater options)

- **Altro**
  If an 'Altro' type floor covering is to be laid, the modular floor panels will be finished internally in smooth galvanised steel or overlaid with 9.5mm thick plywood

  Overlays
  Where specified overlays are available (see separate architectural specification)

- **Heater Mats**
  If a coldroom is installed on other than ground floors or for temperatures below -18°C heater mats are required to eliminate condensation

  Options:

Flexible	Approx 5mm thick
Modular	25mm thick
Traditional	Incorporated within a 50mm screed

Floor types	Static Load (distributed)	Concentrated Load (300mm x 300mm)	Concentrated Load (25mm x 25mm)	Rolling Load	Recommended Application
1.5mm rigidised mild steel galvanised non reinforced	1500kg/m²	900kg	400kg	250kg	Light Duty Trolley Shelving supports
1.5mm rigidised mild steel galvanised reinforced	1500kg/m²	900kg	400kg	400kg	Heavy Duty Trolley

Note: Foster does not recommend mild steel galvanised floors in acidic/saline environments
For floor loadings greater than those stated above, contact Foster Coldroom Sales
It is important to have a flat, level floor for the installation of the coldroom

technical specifications

Dimensions

- Wall Panels
  Standard height options 2.1m, 2.3m, and 2.6m.
  Special heights on application

- Insulation
  Thickness based on 32°C ambient

75mm	Down to -23°C
100mm	Down to -29°C

  Insulation thickness may need to meet different structural criteria on higher ambients

- Ceiling Panels (Standard width 1200mm):
  Maximum unsupported

Thickness	Ceilings Length
75mm	4.2m
100mm	6.0m

  On rooms with large ceiling spans, external ceiling supports will be fitted

Construction

- The coldroom is constructed on the modular principle with each panel being locked securely to adjacent panels and drawn tightly together by the Fosterlok cassette cam-operated locking system. The locks are securely foamed in place without any wood or metal being used with locking hole buttons provided

- Panel edges are precision box-formed for strength and rigidity with all round tongue and groove jointing to ensure a good, strong, hygienic joint, eliminating the need for gaskets, cover strips, screws or rivets

- Two beads of mastic sealer need to be applied to the female recess of each panel before locking tight to the male profile of the next panel. A silicone sealer is applied between the returned metal edges of the panels inside and outside the coldroom to prevent any ingress of moisture

- The coldroom is erected from 1200mm wide panels with corner and partition joints fabricated to suit the site to ensure exact dimensional requirements. Corner, partition, wall to ceiling and wall to modular floor joints are secured internally by aluminium angle section complete with UPVC coved profile with spherical ball corner pieces for ease of cleaning. External exposed corner and ceiling to wall joints are fitted with 80 x 80 ABS angle secured by thermoplastic drive rivets.
  All coldrooms conform to BS 2502

Fire Retardancy

- Insulation contains a fire retardant additive. Panels are tested to:
  BS 476: Part 7 - Class 1
  BS 476: Part 6 - Index I<12, 1<6

BS 4735:	Mean extent burnt 55mm
	Mean extinction time 57 secs
	Mean burning rate 0.9mm/sec

  (Panels shall conform to the requirement of The Building Regulations (1985) _ Fire Spread - Class 'O').
  Coldrooms are supplied to BS 5588 Part 11 section 17 when specified for retail store/shop applications

Insulation

- Each panel is insulated with closed cell rigid polyurethane foam injected using high pressure technology, and securely bonded to facing material to form a 'one-piece' construction. Foam is totally free of HCFC blowing agent having a O.D.P. of zero. Panels have a maximum 'K' factor (initial) of 0.023 W/MK at 10°C mean temperature. Foam density is between 40kg/m3 to 44kg/m3 to provide optimum thermal insulation efficiency and a strong lightweight panel construction

Standard References

BS 476:	Fire test on building materials and structures
BS 476:	Part 6: Method of test for fire propagation of products
BS 476:	Part 7: Method of classification of the surface spread of flame of products
BS 2502:	Specification for the manufacture of sectional coldrooms (walk in type)
BS 5588:	Part 11 Fire precautions in the design, construction and use of buildings (on application)
BS 4533:	Lummaires (on application)

Quality Assured

- Foster coldrooms are manufactured to the strict dictates of international quality standards. Foster are registered to BS5750; Part 1 and ISO 9001 / ISO 14001 quality systems for design, manufacture, installation and service of refrigeration equipment and panel products

Supervision (UK only)

- The facility is available for the installation to be controlled by an Installation Supervisor from the initial receipt of order to the final handover. Services are available for pre-installation site visits and meetings, control of drawings and paperwork, and supervising the actual installation in accordance with ISO 9001

For full technical details, please refer to our Coldroom Architectural Specifications (available on request)

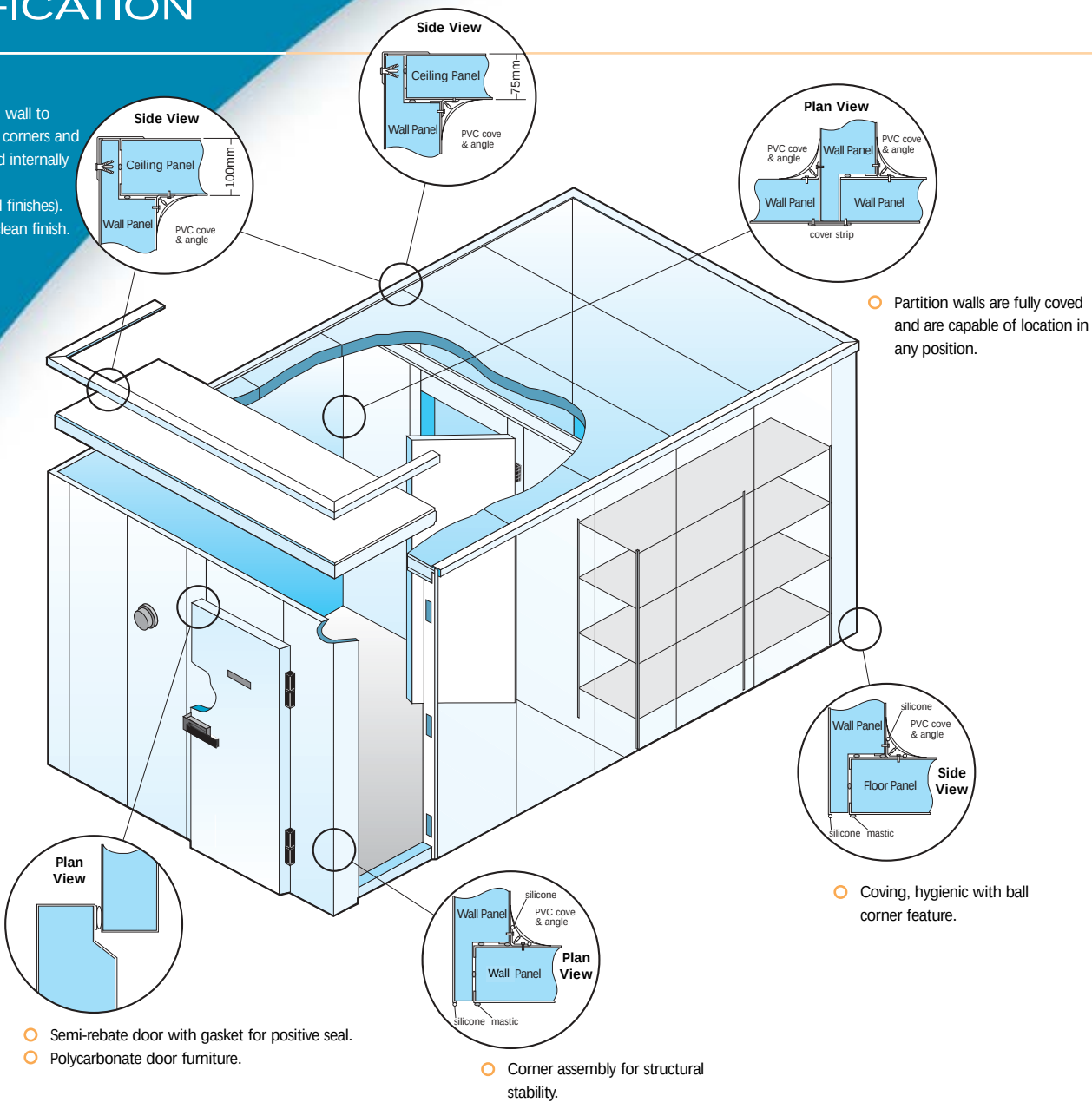
FOSTER

TECHNICAL SPECIFICATIONS

COLDROOMS

ARCHITECTURAL SPECIFICATION

- Wall to ceiling joints, wall to modular floor joints, corners and partitions are secured internally by aluminium angle.
- Fully coved (standard finishes).
- White trim ensures clean finish.



- Partition walls are fully coved and are capable of location in any position.
- Coving, hygienic with ball corner feature.
- Semi-rebate door with gasket for positive seal.
- Polycarbonate door furniture.
- Corner assembly for structural stability.

Quality Management

The manufacturer shall be registered to ISO 9001 quality systems for the design, manufacture, installation and service of the refrigeration equipment and panel products. This means that the management procedures and control systems set up ensure the quality of products and services have been independently assessed to be effective.

Supervision (Applies only to the UK)

The facility shall be available for the installation to be controlled by an Installation Supervisor from the initial receipt of order to the final handover. His services shall be made available for pre-installation sites visits and meetings, control of drawings and paperwork, and supervising the actual installation in accordance with ISO 9001.

LLOYD'S REGISTER QUALITY ASSURANCE ISO9001 UKAS QUALITY MANAGEMENT 001

COLDROOMS ARCHITECTURAL SPECIFICATION

Construction

The coldroom shall be constructed on the modular principle with each panel being locked securely to adjacent panels and drawn tightly together by the 'Fosterlok' cassette cam-operated locking system. The locks shall be securely foamed in place without any wood or metal being used and locking hole buttons shall be provided.

Panel edges shall be precision box-formed for strength and rigidity with all round tongue and groove jointing to ensure a good, strong, hygienic joint, eliminating the need for gaskets, cover strips, screws or rivets.

Two beads of mastic sealer are to be applied to the female recess of each panel before locking tight to the male profile of the next panel. A silicone sealer is to be applied between the returned metal edges of the panels inside and outside the coldroom to prevent any ingress of moisture.

The coldroom will be erected from 1200mm wide panels with corner and partition joints fabricated to suit the site to ensure exact dimensional requirements. Corner, partition, wall to ceiling and wall to modular floor joints shall be secured internally by aluminium angle section complete with UPVC coved profile with spherical ball corner pieces for ease of cleaning. External exposed corner and ceiling to wall joints to be fitted with 80 x 80 ABS angle secured by thermoplastic drive rivets.
All coldrooms shall conform to BS 2502.

Fire Retardancy

Insulation contains a fire retardant additive. Panels are tested to:

- BS 476: Part 7 - Class 1
- BS 476: Part 6 - Index I<12, 1<6
- BS 4735

(Panels shall conform to the requirement of The Building Regulations (1985) - Fire Spread - Class 'O'). Coldrooms are supplied to BS 5588 Part 11 section 17 when specified for retail store/shop applications.

Important Note:
The fire test results stated relate only to the behaviour of the test specimens of the product under the particular condition of test. They are not intended to be the sole criteria for assessing the potential fire hazard of the product in use. Test results should be read in conjunction with the relevant standard and local fire regulations.

Panel Finishes

Standard panels shall be finished in a white 'food-safe' corrosion resistant anti-static stay clean longer PVC laminate film on galvanised steel substrate to all wall surfaces and interior of ceiling. Exterior of floors and ceilings shall be finished in galvanised steel.
Alternative finishes available upon request:

- Stainless steel (walls/ceilings)
- Galvanised steel (walls/ceilings)

Panel Reinforcing

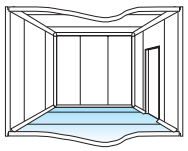
Where specified for fixing lightweight items to the insulated wall panels, reinforcing plates shall be incorporated at the manufacturing stage.

Insulation

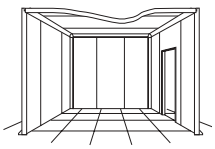
Each panel shall be insulated with closed cell rigid polyurethane foam, injected using high pressure technology, and securely bonded to facing material to form a 'one-piece' construction. The foam insulation is CFC free and has a zero ODP. Panels shall have a maximum 'K' factor (initial) of 0.021 W/MK at 23°C mean temperature. Foam density shall be between 38kg/m³ to 44kg/m³ to provide optimum thermal insulation efficiency and a strong lightweight panel construction.
'Fosterloks' shall be securely foamed into panels without wood, metal or conducting means.
Panels shall be of 75mm or 100mm thickness to specification.

Coving System

Standard rooms will be supplied with coving to all vertical and horizontal joints. This consists of screw in aluminium retainer, clip on coving corner retainers, corner cover pieces and coving end pieces.
All are available in white or grey for stainless steel rooms and are fitted after erecting the room.



Standard fully coved (floored room)



Standard fully coved (floorless room)

Doors and Door Jambs

Standard doors shall be located in a 1200mm panel section having a clear opening of 900mm wide x 1975mm high.

Alternative standard door openings shall be available to the same specification as above:

- 675mm wide x 1975mm high
- 675mm wide x 1825mm high

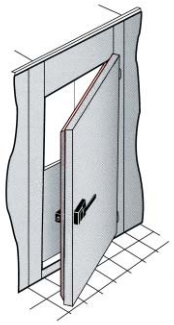
Doors shall be mounted on reinforced polycarbonate rising butt hinges fixed by concealed screws.
Hinging shall be left or right hand, where specified.
Standard doors shall be Semi-rebate type. Sealing gaskets are provided as an integral part of the door leaf.

Each door shall be furnished with a handle and strike of non corrosive material and be complete with security lock and two keys. Each handle shall be provided with an internal safety release, which shall override the locking mechanism. An 'Emergency' exit instruction label shall be supplied.

A non conductive thermal break shall be provided to the door jamb aperture.

The door mullions for temperature range of -2°C or below shall be furnished with 24 volt anti-condensation safety heaters, which shall be readily accessible for replacement and rated at 13.1 watts/m length. Philips head or similar screws shall not be employed. Wires shall exit the top of each door jamb.

Threshold plates (supplied for modular floors) shall be provided in heavy duty, 304 grade stainless steel and shall also be furnished with a 24 volt heater for temperature ranges of -2°C or below. Transformer (when supplied) shall be 230v/24v/50hz/1ph AC - 100VA to BS 2757 Class 'E' of steel sheet construction with epoxy powder finish, suitable for temperature range -10°C to +50°C. One transformer is required per standard door when the room is below 0°C.



Alternative Door Options

A number of door options are available, please consult Foster Walk-In Customer Support Department for full details:

- Semi-rebate door type, standard clear opening 1975mm x 900mm. Other options:
  1975mm x 600mm
  1975mm x 675mm
  1975mm x 800mm
- Door openings above 900mm are available upon request.
- Sliding door mounted with 'Fermod' tracks and hardware (or equivalent) shall be available upon specification for door openings.
- Two-way swing personnel double action hygienic doors, giving various clear opening sizes. The door blade will be made from seamless glass fibre reinforced polyester moulded around a core of closed cell rigid PVC.
- For extra heavy-duty application, a heavy duty, chrome plated handle and latch assembly shall be supplied - upon specification ('JUMBO' type) - complete with integral lock and two keys. This option should be considered where trolley/cart traffic is likely to cause damage. (Only available on semi-rebate door).
- Door viewing panel (Not available on slab type)
- Door kick plate
- Plastic Strip Curtain which shall be fixed on hinges to the inside of the door opening and made from strips of clear plastic.
- Air curtain, which shall be fixed above the outside of the door opening and electrically operated when the door is opened.

Stepped Entry

Where coldrooms are supplied with modular floors resulting in a stepped entry the vinyl door gasket will ensure a positive thermal seal to the perimeter.

Flush Entry

Where coldrooms are supplied without floors or level entry is attained, a rubber wiper gasket shall be furnished to the base of the doors to ensure a positive thermal seal to floor. The wiper gasket blade shall be replaceable for maintenance.

COLDROOMS ARCHITECTURAL SPECIFICATION

Floor Construction

Modular
Interior of floors finished in a choice of:

Note:
Foster does not recommend mild steel galvanised floors in acidic/saline environments.
For floor loadings greater than those stated below, contact Foster Walk-In Customer Support.

Floor Types	Static Load (distributed)	Concentrated Load (300mm x 300mm)	Concentrated Load (25mm x 25mm)	Rolling Load	Recommended Application
1.5mm rigidised mild steel galvanised non reinforced	1500kg/m²	900kg	400kg	250kg	Light duty trolley Shelving Supports
1.5mm rigidised mild steel galvanised reinforced	1500kg/m²	900kg	400kg	400kg	Heavy duty trolley
1.5mm 304 patterned stainless steel non reinforced	1500kg/m²	900kg	400kg	250kg	Light duty trolley Shelving Supports
1.5mm 304 patterned stainless steel reinforced	1500kg/m²	900kg	400kg	400kg	Heavy duty trolley
1.5mm patterned aluminium reinforced	1500kg/m²	900kg	400kg	N/A	Pedestrian traffic

Floor Options

Floorless
Where specified, the coldrooms shall be supplied floorless. The wall panels will be secured to the subfloor by means of white plastic perimeter channel. If an 'Altro' type floor covering is to be laid, it shall then be taken through and coved up the base of the wall panels to give an easy to clean, hygienic finish as part of a separate contract.

In situ
Where specified, the floor shall be of *in situ* construction consisting of:
1000 gauge polythene vapour barrier overlaid with Styrofoam slabs with the joints staggered to give a good thermal barrier; and then a reinforced granolithic concrete topping trowelled smooth. A recess in the subfloor will be necessary to allow for level entry.
A heater mat may also be required (see Heater Mat options).

Altro
If an 'Altro' type floor covering is to be laid, the modular floor panels are to be finished internally in smooth galvanised steel and overlaid with 9.5mm thick plywood.

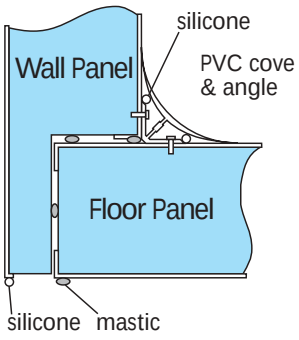
Overlays
Overlay options only apply to smooth galvanised and smooth galvanised reinforced.
9.5mm plywood overlay.
2mm aluminium overlay.
3mm aluminium overlay.
1.5mm rigid galvanised overlay.
1.5mm 304 stainless steel overlay.

Heater Mats
If a coldroom is installed on floors other than ground floors or for temperatures below 0°C heater mats are recommended. If a level entry is required, the recess depth should be increased by the heater mat thickness.

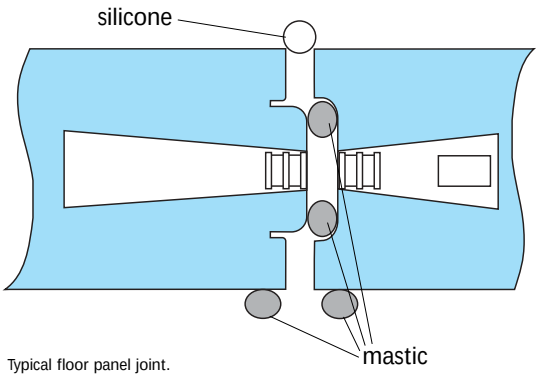
Flexible
A low voltage **flexible** heater mat approximately 5mm thick is to be laid onto the subfloor and will be complete with transformer and control panel.

Modular
A low voltage **modular** heater mat 25mm thick is to be laid onto the subfloor and will be complete with transformer and control panel.

Traditional
A low voltage **traditional** heater mat incorporated within a 50mm thick screed is to be laid onto the subfloor and will be complete with transformer and control panel.



Typical wall/floor joint.



Typical floor panel joint.