PEB COMPONENTS

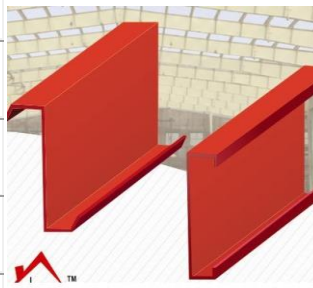
C & Z Purlin

CREATIVE Purlins is a structural component, C&Z Purlins are processed Cold roll-formed from high Tensile steel coil to use as support for framed structures. They are designed to use as secondary support for roofing and cladding application. They are light weight, high tensile, efficient and economical requiring minimum maintenance and will last for longer period. It is available in customized length & it saves more than 30% of the steel by weight.

CREATIVE Purlin is cost effective in comparison to conventional structure element: channel section, angle section and tubular section.

Specification

Bay Spacing	CREATIVE Purlin		Tubular Section		Hot rolled Channels		Angle Section	
(m)	Section	Wt (Kg/m)	Section	Wt (Kg/m)	Section	Wt (Kg/m)	Section	Wt (Kg/m)
2500	Z10010	1.75	Tube 70*3	3.22	ISMC 75	6.8	100*100*6	9.2
3300	Z15015	3.56	Tube 90*3	4.16	ISMC 75	6.8	100*100*6	9.2
3800	Z15015	3.56	Tube 90*4	5.53	ISMC 100	9.2	100*100*6	9.2
4250	Z15015	3.56	Tube 100*4	6.15	ISMC 100	9.2	130*130*8	15.92



DL=0.1 KN/m2, LL=0.75 KN/m2, WL=1.6 KN/m2 (V=47m/sec), Purlin spacing =1.40 m

Note: Above table is intended for comparison only, and is not a substitute for professional judgment. Please contact Oriental professional Engineer for design purpose.

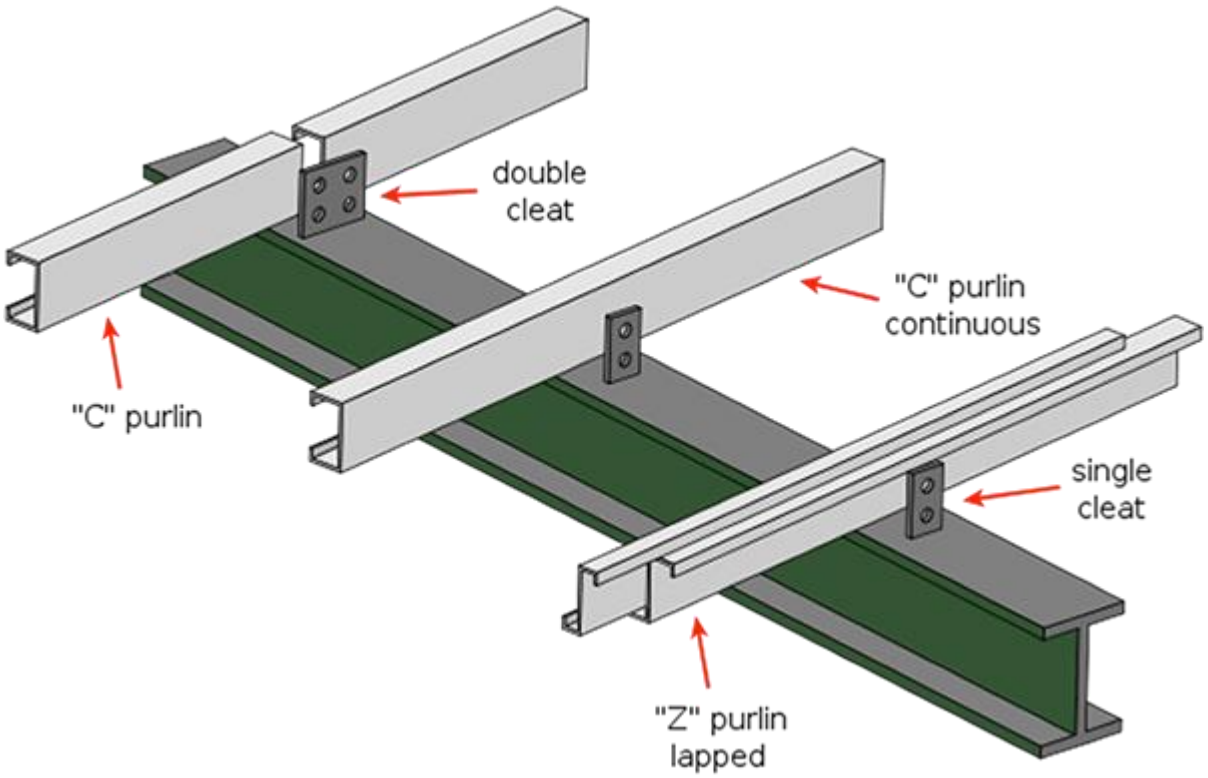
Standard Offers

Purlin	Zinc Coating (g/m2)	Thickness (mm)	Depth (mm)	length (m)
Z10010	120	1	102	6
Z15015	120	1.5	152	6

Benefits

- Light weight and strong
- Greater spanning capability
- Zinc coating to provide longer life
- No welding at site
- No painting required after installation
- Lower maintenance cost

Joint Detail of Z & C Purlin Section.



DECK SHEET

STEEL DECK SHEETS

Steel deck is made by cold forming structural grade sheet steel into a repeating pattern of parallel ribs. The strength and stiffness of the panels are a result of the shape of the ribs and the material properties of the steel. The present version of the Indian Standard for Cold Rolled Cold Annealed (CRCA) steel (IS 513) is not rich in content in respect to the structural applications that CRCA steel has been witne~sing in the country. With hot rolled (HR) Steel long available in grades like Yst 240 and Yst 310 for processing into CR ste~l, the exclusion of structural grade steel from IS 513 remains an enigma. Indian steel manufacturers also make Yst 550 grade of HR and thus availability of high tensile structural steel is a reality for structural grade CRCA material. However, because of the low ductility of high tensile steel (elongations are generally about 1 to 4% for Yst 550 grade CR), its use for deck applications where they act as formwork to support green concrete and unforeseen erection loads until the slab attains its properties may not be wise. Transport considerations would generally limit the length of deck sheets to about 7.2 m. The sheets are furnished in standard width with ends square cut. Any cutting for width, e.g. cuts for openings, angular fits etc. are done at the job site by the fitting crew.

SACRIFICIAL SIIUTTERING (FORM DECK)

Profiled steel sheets as sacrificial shuttering is a concept widely accepted in recent times for fast track construction. It has been established as a pragmatic solution for tall industrial buildings where conventional shuttering props would have been highly impractical. With commercial construction fast gaining ground, and providing faster occupancy translates into sound busi~ess logic, profiled deck sheets as sacrificial shuttering has become an obvious choice. Its advantages are not only techno-economic but also highly practical and utilitarian. ~ Stronger than conventional shuttering ~ Gives congestion-free area during construction ~ Practically propless -free space for parallel activities ~ Simultaneous casting of multiple floors possible ~ Material and sectional properties impart additional strength to finished concrete slab during service period ~ Profile shapes provide additional space for nesting service lines within the notches ~ Faster to install than conventional shuttering ~ Available in multiple material choices

STEEL - CONCRETE COMPOSITE DECK

In addition to acting as a form deck (shuttering) during the construction period, composite deck sheets substitute the tensile reinforcement in the concrete slab. This is made possible by the composite action developed between two dissimilar materials like concrete and steel by the provision of shear connectors at the interface of the two materials. These shear connectors are embossments in the deck sheets in typical pattern unique to each profile. These embossments develop friction as well as mechanical interlock between the concrete and steel sheet. These two reactions take care of longitudinal shear developed at the interface of the concrete and steel sheet, preventing sliP. and thereby enabling the two materials to act as a single entity of composite deck. To ensure friction at the embossments, there should not be any paint or grease on the sheet surface in contact with concrete nor should any vibrating load be permitted to act on the slab untill the concrete has set completely and composite action has developed. The friction between the steel

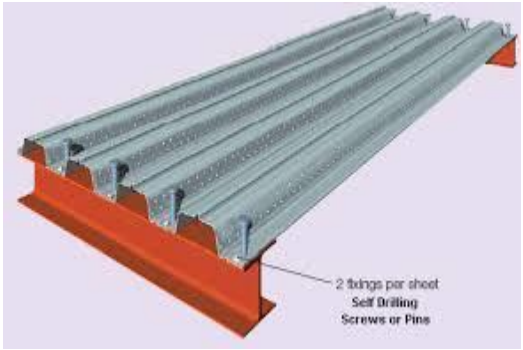
sheet and concrete is expressed by a co-efficient denoted as "k" while the mechanical interlocking between steel and concrete made effective by the embossments is denoted by "m". The design of the composite slab is entirely governed by these two coefficients "m" and "k" which are also known as the shear-bond values of a composite deck sheet. It is not enough merely to incorporate the embossments on a profiled sheet to proclaim composite slab action. Each profile with its embossment is unique and will have its own unique shear-bond value. This unique shear-bond value is mandatorily to be established through extensive laboratory tests (BS 5950 : Part 4, EUROCODE 3) as per guidelines laid down in the standard before the profile can qualify as a true, established composite deck sheet.

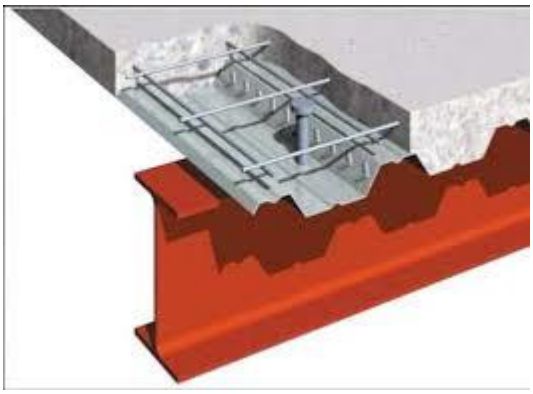
Application .

Steel deck for mezzanine floors . Tensile steel for composite slab construction that cuts down on slab thickness and dead weight of buildings. No separate formwork required for slab casting. . Form deck / sacrificial shuttering

Available Thickness . 0.8 mm, 1.0mm , 1.2 mm.1.5mm

Available Finish . CRCA and Galvanised.



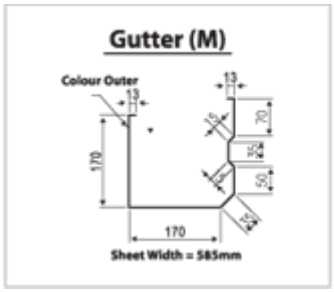


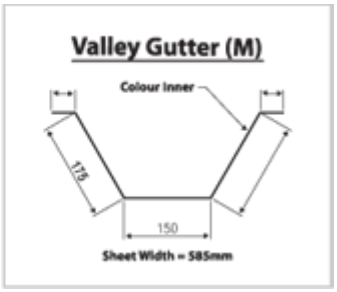
RAINWATER SYSTEMS & ACCESSORIES

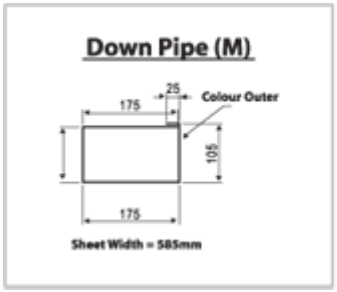
Creative offers wide range of accessories and rain water systems to meet the customers expectation. The accessories are designed to take care of the purpose of the clients and to meet the aesthetic appearance. It provides an effective and efficient system providing total roofing solutions to the clients.

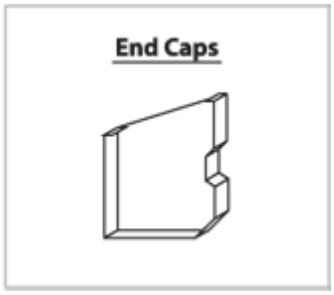
Accessories are also available in small , medium , heavy and customized sizes as per client's requirements

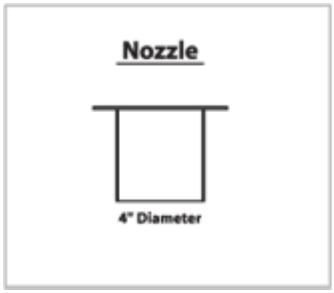
Ridge Caps : Ridge Caps are available in similar colors as that of profile sheets.

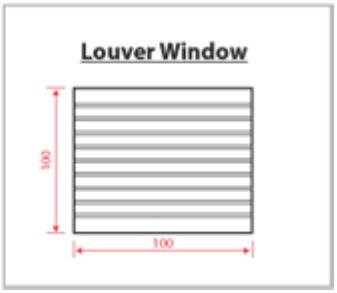


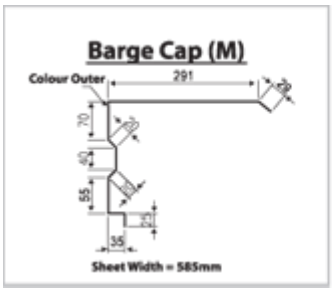


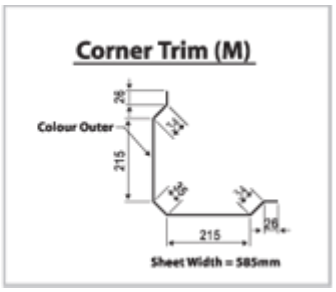


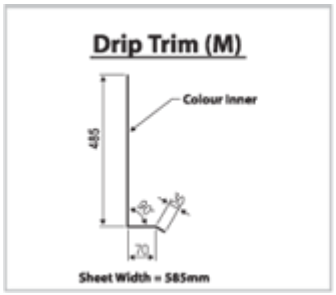


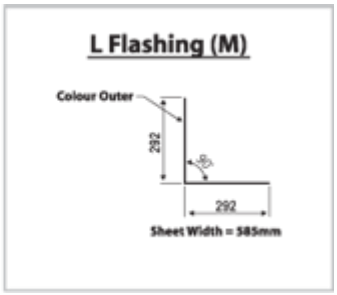


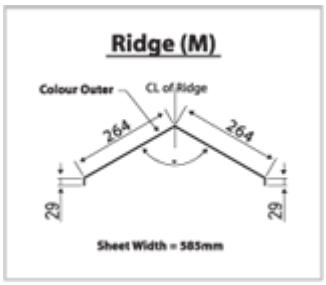












SELF DRILLING SCREW

1. **Self Drilling screw**

Hot dipped galvanized with high durable protective triple coated, Self Tapping Screw (STS) Self Drilling Screw (SDS) to suit domestic and industrial roofing in customized colors matching your colorful roof

Use recommended fasteners only. Poor quality fasteners can damage the sheets in the long run as corrosion of the components may get transferred to color coated metal sheets.

For fixing SDS Screws

Use Torque adjustable electronic gun screw driver with a capacity of 500 w and @ 2000 - 2500 rpm.

The below dimensions indicated are approximate with the usual tolerance applicable

FASTENERS	
Crest fixing for Trap Profile < 0.80mm TCT	SDS CS 12G- 14 TPI x 55mm long DTSS
For Cladding Valley Fixing < 0.80mm TCT	SDS CS 12G- 14 TPI x 25mm long
For Corrugation < 0.60mm TCT	SDS CS 12G- 14 TPI x 45mm long or 55mm long
For Tile Roof	SDS CS 12G- 14 TPI x 20mm long
For overlap Fixing	SDS CS 12G- 14 TPI x 20mm long
For Accessories	

Turbo Ventilators

Creative wind ventilator has introduced and promoted wind ventilation as a 'New Concept' in India with the twin objectives of power conservation in places where power is available: and ventilation in places where power is not available.

Creative Building Systems has engineered Wind Ventilators . Once installed, wind ventilators get rid of recurring electricity charges associated with conventional systems providing

round-the-clock ventilation, are maintenance-free, and eliminate chances of electrical short circuits. They also save on labor required to operate conventional systems.

SPECIFICATION FOR VENTILATOR		
S.No.	**Description**	
1	Model	Creative-24
2	Ventilator Size	24"
3	Ventilator Height	400MM
4	MOC of Vanes	Aluminium 0.45 mm
5	MOC of Top Plate	Aluminium 1.0 MM
6	MOC of Bottom Ring	FRP
7	Weight of Ventilator	6.5 Kg
8	Center Width of Ventilator	750 MM
9	Dia of Bottom Ring	24"
10	Nos of Vanes	42
11	Thickness of Vanes	0.45
12	Nos of Bearing	2 Nos.
13	Bearing Type	SKF make ZZ 6001
14	Rivets	Al-magnisium Alloy
15	Bush	Nil
16	Shaft & Connecting Rod	SS
17	Bolts & Nuts	Galvanised steel
18	Base	FRP
19	Support	MS
20	Discharge capecity @6MPH	95000Cft/Hr

Insulation materials

Creative building solutions one of raising organization in the northern region engaged in the field of Insulation system.

We undertake inspection design, supply installation testing and commissioning of all type of insulation i.e thermal, Cold and acoustical treatment.

In present day of energy Crisis increasing demand of energy saving in growing the answer- is Insulation.

Why insulation?

From primitive cave shelter to present days multi structured modern apartments, the problems always remained is how to protect us from the nature like cold, heat, wind, rain and show.

Today our buildings are made in a way where is use enormous amount of energy, water and material which also generate huge amount of pollution resulting profound effect in eco system and occupants.

India is country with extreme weather condition this combination of high temperature and humidity makes unworkable condition in workspace and unbearable living in house. To retard flow of heat or cold in termed as Insulation.

We at Creative Building Solutions promotes the Green Building Concept in order to help achieve energy conservation and pollution free living comfort through insulation.

BENEFITS OF INSULATED BUILDINGS:

Cost saving through substantially reduced energy demand.

More durable building construction adaptability.

Thermal insulation reduces heat in to the building and provides congenial working atmosphere.

Insulation reduces the load in the air conditioning system.

Thermal insulation generates superior indoor air quality and healthy work environment and productivity.

Upgrade living standard improved human comfort.

The commonly used thermal insulation materials are-

Rockwool, Glasswool, Polyurethane Foam, Nitrile rubber, Thermocol Insulation.

ROCKWOOL

Rockwool slabs are made from rocks which spun in to Micronics diameter of fibers with resin bonded felted and cured to optimum density and resistance. Providing excellent thermal and acoustic insulation properties low construction cost easy installation and has fine appearances.

BENEFITS:

Sound absorption, fire resistance, compression resistance, thermal conductivity.

GLASSWOOL

Glasswool has excellent thermal and acoustic properties. Low construction cost, easy installation and has good appearance. The product is recommended for use of both hot and cold application.

BENEFITS:

Temperature control, Fire Safety, Reduce Heat load, sound absorption, Dimensional stability, Noise control.

POLUURETHANE FOAM

Rigid polyurethane foam is designed to combine highly efficient thermal and cold Insulation with excellent ease of application. It is deal for a wide range of installation application in building s particularly roofs.

Which dries fast to form SEAMLESS and MONOLITHIC Insulation cover.

ADVANTAGES:

Efficient thermal insulation, Monolithic, seamless and water resistance, Strong and light weight.

No sag, excellent adhesion to any surface. Easy to handle and apply.

ELASTOMERIC FOAM (Nitrile rubber) INSULATION:

Designed for condensation control for air conditioning and refrigeration, Meets the need of insulation for HVAC, and industrial noise control.

Unique closed cell structure of the insulation provides stable & very low thermal conductivity. Smooth skin of the material provides higher water vapor diffusion resistance.

Insulated PUFF panel roof & wall system.

Creative Panel systems are the answer to the Architectural problem of providing high insulation value to the roofing and wall in air conditioning and industrial/commercial building. It provides a one-step solution in the form of a pre-fabricated sandwich polyurethane Panel which ensure exceptional strength since it is a composite system comprising of Profile on one side, linear tray on the inner face and injected CFC free, closed cell high density polyurethane in between

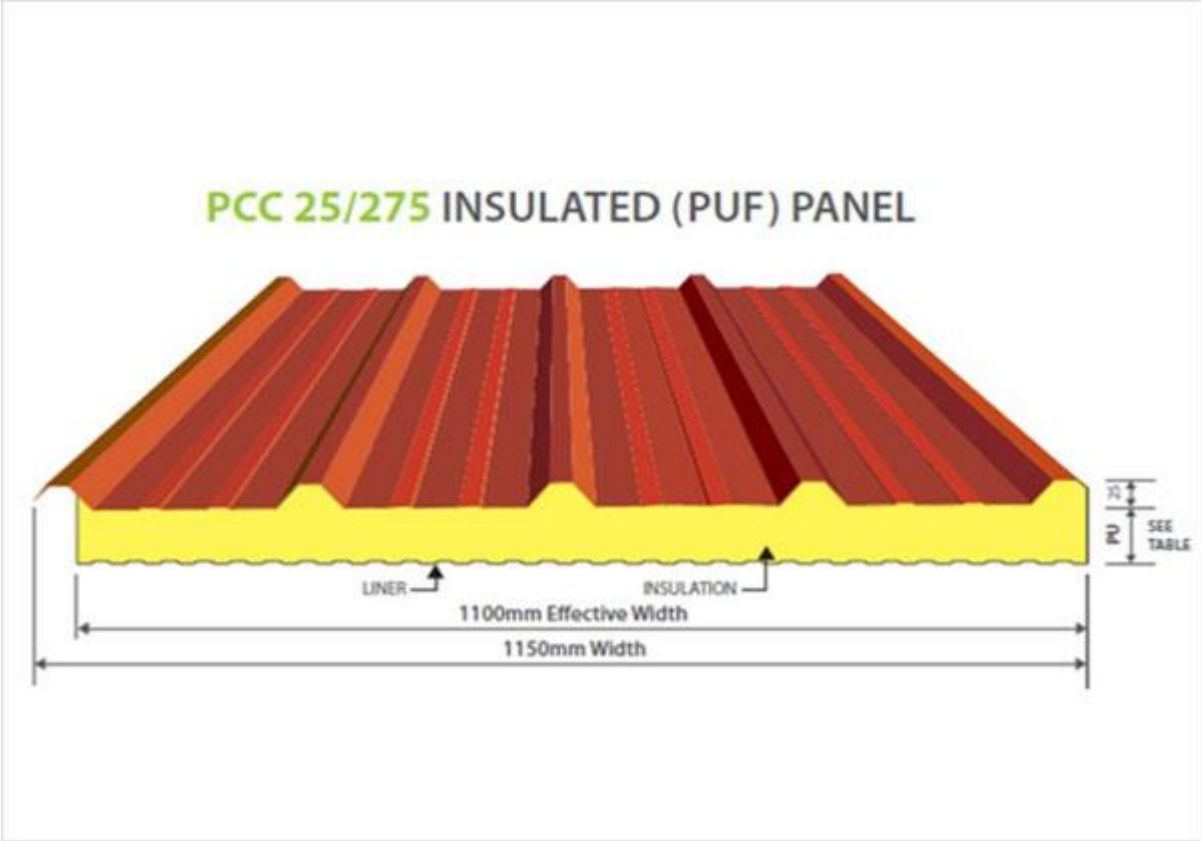
Application of Insulated roofing & wall cladding

Panel system finds wide applications in the following areas:

- Cold store
- Post Harvest Management
- Clean Room

- CA Rooms
- Ripening Rooms
- Telecom Shelter

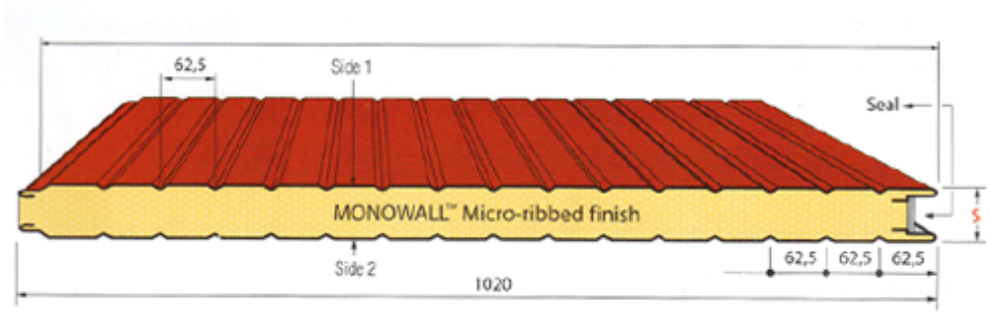
Insulated Panel Roof System



Self-supporting metal panel, insulated with polyurethane, for pitched roofs with a minimum slope of 7%.

Table of safe spans
Values guaranteed with external face in steel, 0.5 mm thick, and internal face in steel, 0.4 mm thick or with both faces in aluminium 0,6 mm thick with external face in aluminium, 0.6 mm thick, and internal face in steel, 0.5 mm thick.

Insulated Wall system



Self-supporting metal panels insulated with PUR for use in industrial and commercial buildings, refrigerated rooms with positive temperature, and partitions in general.