DSI | BUILDING MATERIALS

DALAL
STEEL INDUSTRIES

DALAL STEEL INDUSTRIES

SANDWICH PANELS

Mineral wool (Rockwool)

Normally classed as A2-s1, d0. Panels with a hard core of high-density mineral wool fiber. A mineral wool panel generally achieves a very high fire performance and normally produces less smoke and heat than a panel with a polymer core. However, even a mineral wool panel is not classed as wholly non-combustible (class A1), as the fiber core contains binders and the core is glued to the sheets, usually with a polyurethane adhesive. For this reason, it is classed as A2. For structures serving as fire cell partitions, where a high fire resistance is required (greater than EI30), requirements are currently only satisfied by panels with a mineral wool core.

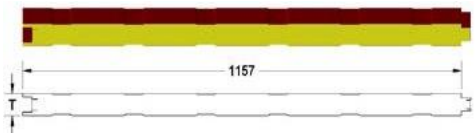
PUR – Polyurethane B3

Normally classed as C or D-s3, d0. A PUR foam performs less well in a fire than PIR and Rockwool Insulation. It emits more smoke and produces more heat during a fire.

PIR –Polyisocyanurate

Normally classed as B-s2, d0. A PIR core is a type of polyurethane that has undergone significant material modification. In the event of a fire the core chars on the exposed side; this charred layer then protects the rest of the core from the fire. This means that a panel with a PIR core is more resistant to fire than a PUR B3 core. It also emits less heat and smoke.

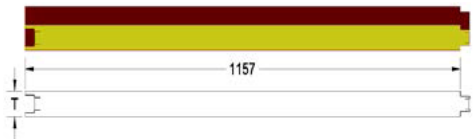
▪ SANDWICH PANELS



Type	WSP-1157
Effective width (mm)	1157
PU Thickness T (mm)	50, 80, 100

Description

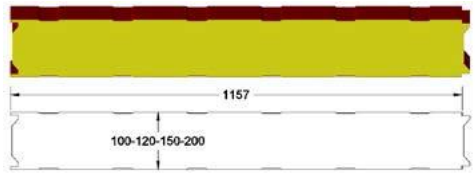
Wall type sandwich panels, tongue-groove, micorib on both sides



Type	WSPF-1157
Effective width (mm)	1157
PU Thickness T (mm)	50, 80,100

Description

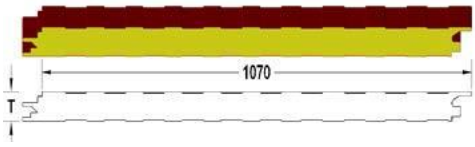
Wall type sandwich panels, tongue-groove, flat on 2 sides, maximum length 3000 mm



Type	WSC-1157
Effective width (mm)	1157
PU Thickness T (mm)	100, 120, 150, 200

Description

Cold Store sandwich panels, double tongue-groove, micorib on both sides



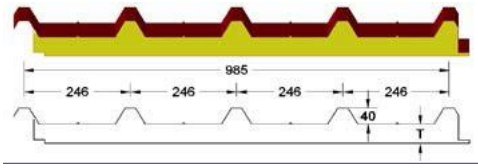
Type	WSPH-1070
Effective width (mm)	1070
PU Thickness T (mm)	50, 80, 100

Description

Wall type sandwich panels, Hidden Screw connection, micorib on both sides

Available Insulation	Polyurethane (Density 40kg/m3), PIR, Rockwool
Base material	Prepainted Galvanized steel, Aluzinc, Aluminum
Available Colors	Off white, red, yellow, green, blue, brown, silver, grey

PVDF, other base materials, colors & thicknesses available upon request

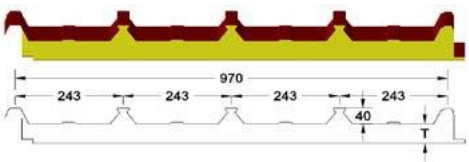


Type	RSP-985
Effective width (mm)	985
PU Thickness T (mm)	50, 80, 100, 120

Description

Roof type sandwich panels

NEW!



Type	SL-RSP-970
Effective width (mm)	970
PU Thickness T (mm)	50, 80, 100

Description

Roof type sandwich panels, Hidden Screw connection, micorib on both sides

Available Insulation	Polyurethane (Density 40kg/m3), PIR, Rockwool
Base material	Prepainted Galvanized steel, Aluzinc, Aluminum
Available Colors	Off white, red, yellow, green, blue, brown, silver, grey

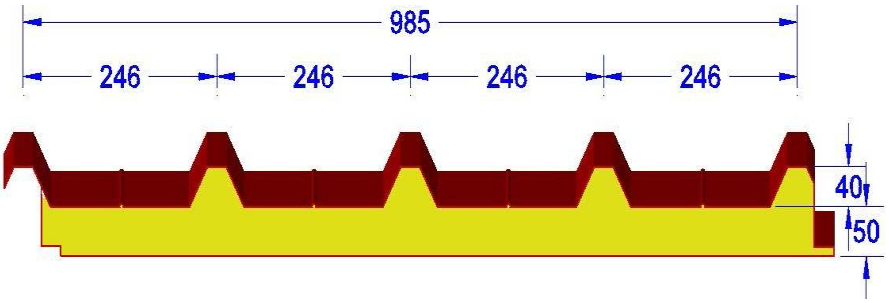
PVDF, other base materials, colors & thicknesses available upon request

* Do not hesitate to contact us for any more technical details

DALAL STEEL INDUSTRIES

SANDWICH PANELS

DSI | ROOF PANELS



MECHANICAL PROPERTIES					
Core Thickness (mm)	50	80	100	120	150
Effective width (mm)	985				
Weight 0.4/0.5 (kg/m^2)	9.89	11.09	11.89	12.69	13.89
Weight 0.5/0.5 (kg/m^2)	10.73	11.93	12.73	13.53	14.73
Weight 0.5/0.7 (kg/m^2)	12.43	13.63	14.43	15.23	16.43
U (W/m^{2}K) PUR	0.361	0.242	0.198	0.168	0.137
U (W/m^{2}K) PIR	0.377	0.253	0.207	0.176	0.143
R (m^{2}K/W) PUR	2.773	4.136	5.045	5.955	7.318
R (m^{2}K/W) PIR	2.652	3.957	4.826	5.696	7.000
PUR Reaction to Fire	C-s2, d0				
PIR Reaction to Fire	B-s2, d0		B-s1, d0		

ALLOWABLE UNIFORM LOADS (KN/M2)												
Panel Thickness "T" (mm)	Panel Span											
	2.50m		3.00m		3.50m		4.00m		4.50m		5.00m	
	S	D	S	D	S	D	S	D	S	D	S	D
90	2.24	7.17	1.87	4.15	1.60	2.61	1.40	1.75	1.25	1.23	1.12	0.9
120	3.24	14.81	2.71	8.57	2.32	5.40	2.30	3.60	1.80	2.54	1.62	1.85
140	4.25	22.46	3.54	13.00	3.03	8.18	2.66	5.48	2.36	3.85	2.12	2.80

- S = Stress Check
- D = Deflection Check controlled by deflection of span/180 for roof panels and span/120 for wall panels
- Based on 0.5mm nominal thickness for interior and exterior panels
- Above values are calculated assuming three continuous spans

DALAL STEEL INDUSTRIES

SANDWICH PANELS

DSI | WALL PANELS

MECHANICAL PROPERTIES					
Core Thickness (mm)	50	80	100	120	150
Effective width (mm)	1157				
Weight 0.4/0.5 (kg/m^2)	9.63	10.83	11.63	12.43	13.63
Weight 0.5/0.5 (kg/m^2)	10.48	11.68	12.48	13.28	14.48
Weight 0.5/0.7 (kg/m^2)	12.17	13.37	14.17	14.97	16.17
U (W/m^{2}K) PUR	0.440	0.275	0.210	0.183	0.147
U (W/m^{2}K) PIR	0.460	0.288	0.230	0.192	0.153
R (m^{2}K/W) PUR	2.273	3.636	4.545	5.455	6.818
R (m^{2}K/W) PIR	2.174	3.478	4.348	5.217	6.522
PUR Reaction to Fire	C-s2, d0				
PIR Reaction to Fire	B-s2, d0		B-s1, d0		

ALLOWABLE UNIFORM LOADS (KN/M2)												
Panel Thickness "T" (mm)	Panel Span											
	2.50m		3.00m		3.50m		4.00m		4.50m		5.00m	
	S	D	S	D	S	D	S	D	S	D	S	D
90	2.00	3.81	1.67	2.20	1.43	1.39	1.25	0.93	1.10	0.65	0.90	0.47
120	3.01	8.55	2.51	4.94	2.15	3.11	1.88	2.10	1.66	1.46	1.35	1.06
140	4.01	15.2	3.34	8.80	2.86	5.56	2.51	3.72	2.22	2.62	1.80	1.90

- S = Stress Check
- D = Deflection Check controlled by deflection of span/180 for roof panels and span/120 for wall panels
- Based on 0.5mm nominal thickness for interior and exterior panels
- Above values are calculated assuming three continuous spans

DALAL STEEL INDUSTRIES

SANDWICH PANELS

DSI | SANDWICH PANELS

CORE TYPES			
	PUR	PIR	ROCKWOOL
	Core made of Stiff Polyurethane Foam	Core made of Stiff Polyisocyanurate Foam	Core made of Mineral Wool
Core density (±3 kg/m^3)	40	40	100
Thermal conductivity (W/m*K)	0.022	0.023	0.035
Compressive Strength (kPa)	180	180	15
Closed Cell Content	≥96%	≥96%	0
Typical fire resistance class	EI 15	EI 15/EI30	E120
Specific acoustic resistance coefficient R_w	27	27	31

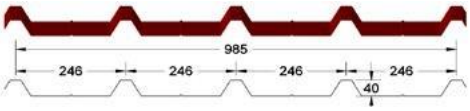
MATERIAL CHARACTERISTICS	
STANDARD	
Base Material	Galvanized Steel 100kg/m3
Top Coating	5 micron primer + 15 micron polyester (standard RAL 9002)
Back Coating	5 micron gray epoxy primer
Outer line thickness	0.5 mm
Inner line thickness	0.4 mm
Polyurethane foam density	40-42 kg/mm3
OPTIONS	
Thickness	50mm, 80mm, 100mm, 120mm, 150mm
Available Base Material	Pre-painted Galvanized Steel: 0.35, 0.5, 0.55mm Pre-Painted Aluminum: 0.7mm Pre-Painted Aluzinc: 0.50, 0.55mm
Colors	Colors available upon request

DALAL
STEEL INDUSTRIES

COVERING PANELS

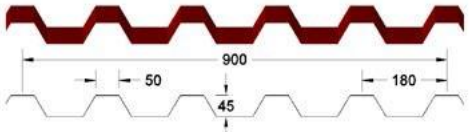
Dalal's covering panels fit for various kinds of building, such as industrial and civil buildings, warehouse, and roof and inner and outer decorative walls.

▪ COVERING PANELS

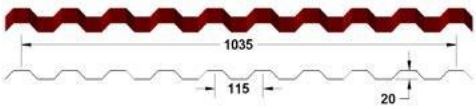


Type	T40/985
Effective width (mm)	985
Thickness (mm)	0.3-0.8

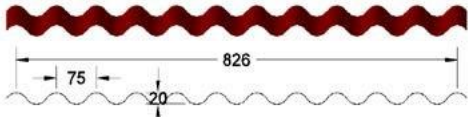
Application



Type	T45/900
Effective width (mm)	900
Thickness (mm)	0.3-0.8

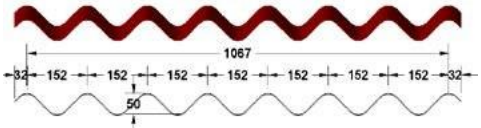


Type	T20/1035
Effective width (mm)	1035
Thickness (mm)	0.3-0.8

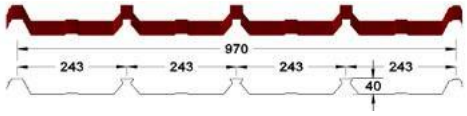


Type	SW20/826
Effective width (mm)	826
Thickness (mm)	0.3-0.8

Roof Panel,
Wall Panels,
Liner Panels,
Curved Surfaces,
Decorative Vertically / Horizontally Installed



Type	SW50/1067
Effective width (mm)	1067
Thickness (mm)	0.3-0.8



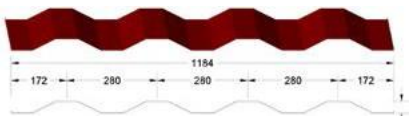
Type	SL-T40/970
Effective width (mm)	970
Thickness (mm)	0.3-0.8

Application NEW!

Roof Panel for solar panel fixation

Base material	Mill finish /Prepainted Galvanized steel, Aluzinc, Aluminum
Available Colors	Off white, red, yellow, green, blue, brown, silver, grey

PVDF, other base materials, colors & thicknesses available upon request

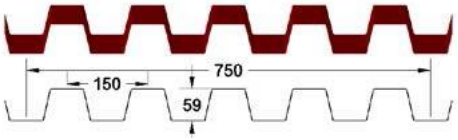


Type	ISO35
Effective width (mm)	1184
Thickness (mm)	1.2-2.5

Application

Container type panel, decorative panel

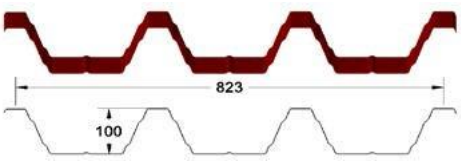
Base material	Mill finish Steel



Type	DP59/750
Effective width (mm)	750
Thickness (mm)	0.7-1.2

Application

Roofing, concrete decking



Type	DP100/823
Effective width (mm)	823
Thickness (mm)	0.7-1.2

Application

Roofing, concrete decking

Base material	Mill finish steel, Aluminum

PVDF, other base materials, colors & thicknesses available upon request

* Do not hesitate to contact us for any more technical details

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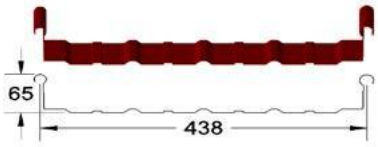
DALAL STEEL INDUSTRIES

COVERING PANELS

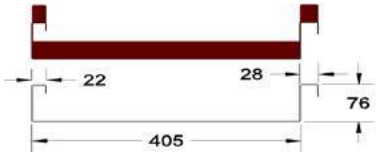
SPECIAL PANELS



Type	DZip-438/65
Effective width (mm)	438
Thickness (mm)	0.6-1.0

Application

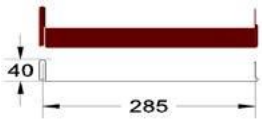
Seamed Roofing, wall cladding



Type	DLock- 405/76
Effective width (mm)	405
Thickness (mm)	1.0-2.0

Application

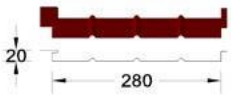
Interlock High rib roofing and wall cladding



Type	DLock- 285/40
Effective width (mm)	285
Thickness (mm)	0.5-1.0

Application

Roof and liner panel



Type	LP-280/20
Effective width (mm)	280
Thickness (mm)	0.5-0.8

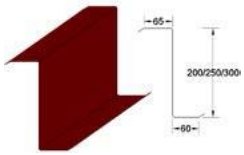
Application

Hidden screw wall, liner panel, decorative

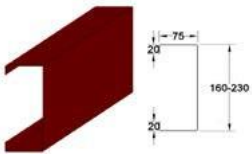
Base material	Mill finish steel, Prepainted Galvanized steel, Aluzinc, Aluminum
Available Colors	Off white, red, yellow, green, blue, brown, silver, grey

PVDF, weathering steel, other base materials, colors & thicknesses available upon request

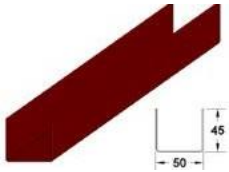
OPEN SECTIONS



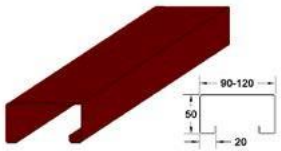
Z 200 - 250 - 300



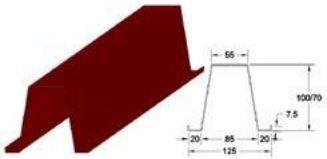
C 160 - 180 - 230



U 50



U 90 -100-120



OG 70 - 100

OG 20

Profiles available 1.0-2.5mm thick

Other angles, profiles, bent shapes available upon request

* To be fixed on Solar Panel Type Roofing SL-T40/970 & SL-RSP-985

NEW!

* Do not hesitate to contact us for any more technical details

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DALAL
STEEL INDUSTRIES

ACCESSORIES

Dalal Steel Industries accessories such as commercial overhead doors and windows can add finishing touches to any prefabricated metal building. We understand that accessories can be as important as the building itself, this is why Dalal Steel Industries makes sure to meet our builders› professional demands.

When producing accessories, we look for consistency in manufacturing and quality of products. Dalal stands for the best quality and service and supplies all types of accessories that are necessary for the end result of your project.

PERSONAL DOOR

ALUMINIUM WINDOW

SECTIONAL DOOR

CANOPY

ROOF

ROLL-UP DOOR

INSULATION

ROOF EXTENSION

LOUVER VENT

CIRCULAR VENT

FIBER GLASS SKYLIGHT

RIDGE VENT

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