

Skylight Catalog



1 Description:

Skylights are versatile products designed to provide natural light, which can be combined with opening mechanisms for natural ventilation and/or smoke extraction. Their construction allows them to be installed in any type of building (industrial warehouses, houses, sports pavilions, shopping centers, etc.).

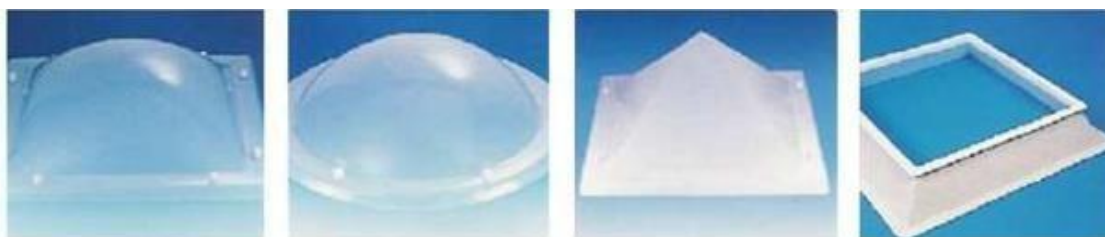
Skylights are made up of the following components:

Polyester resin base reinforced with fiberglass, it can be produced in any profile and color to maintain the aesthetics of the building, guaranteeing total waterproofing. It is fitted with a plinth that allows the dome to be placed at a higher level than the base, ensuring that rainwater drains into the base and does not infiltrate the dome. The plinth also has the function of supporting and fixing a metal frame, which in turn allows the dome and the opening system to be fixed in place.

The domes are made of PMMA (methyl skylights) and can be transparent or opaque, both of which provide an even distribution of natural light, creating environments with a high level of illumination and great visual comfort. These domes have the advantage of saving energy resources by taking advantage of the transmission and diffusion of sunlight.

The dome opening system can be manual or mechanical, or it can even incorporate no system at all as it is an optional measure.

1.1 Models:



Parabolic Dome

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Pyramid Dome

Neck

PMMA domes can be single or double. Double domes are specially designed to ensure greater insulation and therefore greater energy savings, and prevent condensation which occurs in extreme conditions of humidity and high temperatures.



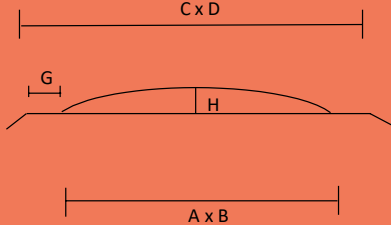



1.2 Technical specifications:

Mechanical characteristics		Value	Unit	Standard
Specific Weight		1,18	Gr/cm ³	DIN 53479
Resistance	Traction	750	kg/cm	DIN 53455
	Compression	1500	kg/cm	DIN 53454
	Flexion	1400	kg/cm	DIN 53452
	Impact	2,3	kg/cm	DIN 53453
	Abrasion	70	mg	UNE 53166-71
Elasticity		30000	kg/cm	DIN 53457
Enlargement		4,4	%	DIN 53455
Water absorption (24h.)		0,17	%	DIN 53472
Contraction		2	%	UNE 53340-77-II

Optical characteristics		Value	Unit	Standard
Light Transmission	Transparent	93	%	-
	Ice	73	%	-
	Loss of reflection	5	%	-
	Refractive index	1,5	(ND 50)	-
	Light absorption	0,05	%	-

Thermal characteristics		Value	Unit	Standard
Specific heat		0,35	kcal/°C/kg	-
Softening point		120	°c	DIN 57302
Thermal conduction		0,258	kcal/mm/°c	-
Linear expansion		,07-,09x10-6	mm/mm°C	-
Heat transmission	Monovalva	5,1	kcal/m2h°c	
	Bivalve	2,2	kcal/m2h°c	

1.3 Dimensions:

Dome	Model	Measures				
			AxB (light area)	CxD mm	H mm	G mm
SQUARE 	40x40	600x600	390x390	520x520	105	65
	50x50	700x700	480x480	610x610	115	65
	60x60	800x800	580x580	710x710	125	65
	70x70	900x900	685x685	815x815	165	65
	80x80	1000x1000	785x785	915x915	180	65
	100x100	1200x1200	975x975	1105x1105	225	65
	120x120	1400x1400	1185x1185	1315x1315	270	65
	130x130	1500x1500	1275x1275	1405x1405	280	65
	140x140	1600x1600	1380x1380	1510x1510	290	65
	150x150	1700x1700	1480x1480	1600x1600	300	65
180x180	2000x2000	1785x1785	1915x1915	330	65	
RECTANGULAR 	30x80	500x1000	295x795	425x925	100	65
	40x70	600x900	395x695	525x825	100	65
	40x230	640x2500	375x2280	575x2420	140	70
	50x80	700x1000	485x785	615x915	140	65
	60x80	800x1000	555x780	735x950	150	65
	60x90	800x1000	555x875	735x1055	150	65
	70x100	900x1200	690x990	820x1120	180	65
	80x130	1000x1500	785x1285	915x1415	200	65
	80x180	1000x2000	805x1800	935x1940	180	65
	140x220	1600x2400	1385x2175	1525x2315	340	70
180x280	2000x3000	1770x2775	1930x2935	400	80	
CIRCULATE 	40	∅ 600	∅ 395	∅ 515	110	60
	50	∅ 700	∅ 510	∅ 630	120	60
	50	∅ 800	∅ 610	∅ 740	130	65
	70	∅ 900	∅ 715	∅ 880	130	65
	80	∅ 1000	∅ 780	∅ 940	160	80
	100	∅ 1200	∅ 1010	∅ 1130	200	80
	130	∅ 1500	∅ 1278	∅ 1435	300	80
	180	∅ 2000	∅ 1800	∅ 1900	330	50

1.4 Mounting:

Skylights can be mounted on any type of roof (sandwich panel, lacquered sheet, fiber cement sheet, etc.) and wall.

1.5 Maintenance:

Cleaning should only be carried out with soap and water, excluding all corrosive products.

2 Types of Skylights

2.1 Skylight:



These are skylights without any kind of opening and their function is to allow natural light to pass through.

2.2 Natural ventilation skylight with opening system:

Electric Motor (220 V ou 24 V cc) (220 V ou 24 V cc):

The electric motor is a practical and convenient system for ventilating hard-to-reach areas. They can be operated via a switch, control unit and/or power pack. Skylights with an electric mechanism have the particularity of being able to be activated from fire detection centers (CDI), and of being associated with sensors (e.g. rain/wind sensor).



Crank handle

Skylights with a crank handle opening mechanism are equipped with gas dampers that ensure the skylight opens after the tension on the retaining cable has been released by manual action by turning the crank handle.



Crank telescope

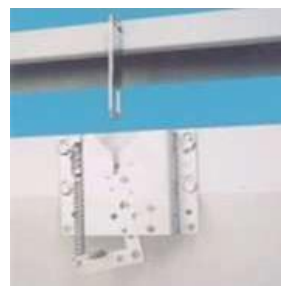
This type of mechanism consists of a double-entry telescopic screw (stainless steel) and an awning-type crank that allows the skylight to be opened manually. It is not recommended for use at heights of more than 4 m.

2.3 Smoke removal skylight:

The thermal fuse venting system is a system that acts individually without any type of electrical and/or pneumatic dependency.

It means opening the skylight completely independently after the thermal fuse has been broken (action temperature is 72°C) by means of gas pistons.

Installation is simple, economical and does not require a power station (and associated network).



2.4 Skylight with Mixed Opening System:

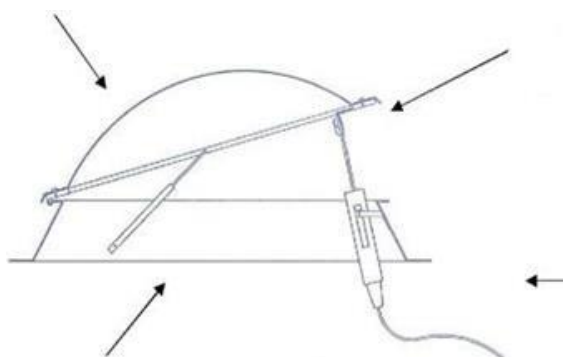


3 Accessories

Any type of skylight can be fitted with rain/wind/sun sensors and can be connected to a fire detection system.

4 Certificates

Parabolic dome in certified PMMA CE 009/CPD/A70/0021



Thermal Fuse 70°C certified by Standard NFS 61-937

Motor with CE marking, Standard CE89/336e CE73/23

GRP base, polyester resin reinforced with fiberglass