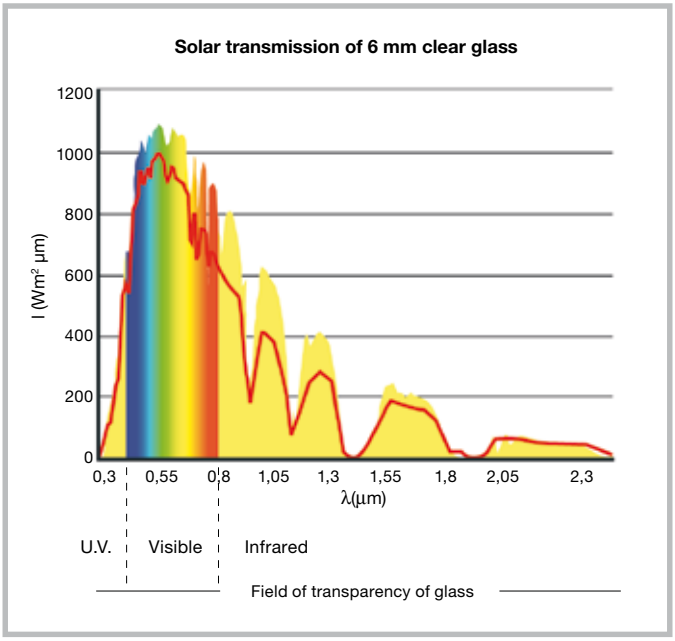
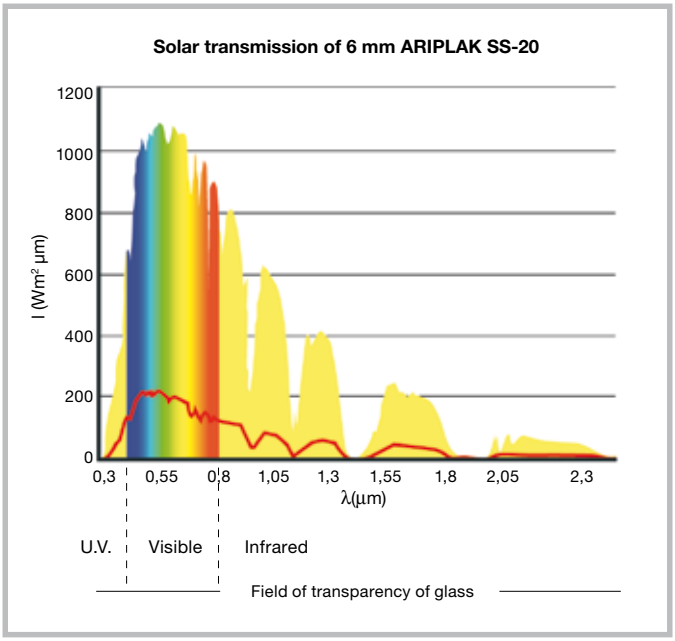
Ariplak Solar
Solar Control Coatings

Ariplak Solar glass is made up of a sheet of glass, either clear or body-tinted glass, upon which metal coatings are deposited using high vacuum technology that give it solar and light control properties.





Properties

The Ariplak Solar range acts directly on solar radiation reducing to a great extent the energy requirements in the interior of the building. This property is fundamental to achieve the requirements of energy saving and sustainability needed from buildings, as by improving the characteristics of solar protection, we reduce the energy necessary to air-condition the space inside, thereby reducing the use of fossil fuels and the emission of greenhouse gases into the atmosphere.

The spectrum of radiation emitted by the sun is distributed into three different ranges:

- Ultraviolet radiation with wavelengths between 280 y 380 nm, that represents between 1 to 3% of the total incident energy.
- Visible light (380-780 nm), with an energy contribution of around 54% of the total.
- Infrared radiation of short waves (780-2500 nm). This is the invisible part of the spectrum with an energy contribution close to 45%.

We have to bear in mind that on the facade, depending on the orientation, geographical situation and time of the year, irradiances of 800 W/m^2 are produced. Therefore the right choice of both light transmission and the solar factor are necessary to optimize the energy factor of the building.

With the Ariplak Solar glass you can also achieve different aesthetic aspects by varying the transmission properties and the reflection of light, more so if these types of layers are combined with body-tinted glass and coloured laminated glass.

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Photo-energetic properties of Ariplak Solar

The photo-energetic properties of Ariplak Solar glass depend on the type of coating used, the thickness and the colouring of the glass base.

The performance features of Ariplak Solar glass in monolithic glass and double glazing are shown in the following tables. Consult our Technical department for other compositions and thickness.

The data that appear in these tables are nominal values based on available information at the time this document was being prepared and are subject to commercial tolerance. The characteristics can vary depending on the applications. Ariño Duglass reserves the right to revise the specifications of its products and standards without prior notification.

ARIPLAK SOLAR - Monolithic glass 6 mm									
TYPE OF LAYER	VISIBLE LIGHT			SOLAR ENERGY					U-VALUE (W/m² °C)
	Transmission L.T. (%)	Reflectión		Transmission D.T.E. (%)	Reflection E.R. (%)	Absorbtion E.A. (%)	SOLAR FACTOR		
		L.R. ext. (%)	L.R. int. (%)				ISO 9050	EN 410	
Espía	3	47	59	4	37	58	17	17	4,9
SS-08	8	41	34	7	33	60	20	20	4,9
SS-14	15	26	36	12	23	65	26	26	5,0
SS-20	20	20	32	16	18	66	31	31	5,1
SS-32	32	12	27	27	10	63	42	42	5,2
SS-40	38	8	21	35	7	58	49	49	5,4
SS-50	50	5	15	46	5	49	58	58	5,5
SS-60	61	13	4	56	13	31	64	64	5,5
TE-15	15	24	27	10	27	63	25	25	5,2
TS-20	20	21	29	14	23	63	28	29	5,2
TBC-20	21	18	34	20	17	63	32	32	5,4
TS-30	30	13	25	23	13	64	39	39	5,4
TS-40	40	9	21	31	9	60	47	47	5,4
TS-55	57	6	15	49	5	46	59	60	5,4
SA-45+	42	19	40	46	17	37	56	56	5,7
ORO-35	32	30	19	29	29	41	39	39	5,6
Ariplak Dark Silver 34/46	38	27	34	46	21	33	54	54	5,7
Ariplak Dark Bronce 19/34	21	11	34	29	10	61	44	44	5,7
Ariplak Dark Gris 16/32	18	10	34	26	9	65	43	43	5,7
Ariplak Dark Verde 28/28	31	19	34	21	11	68	39	39	5,7
Ariplak Dark Azul 23/23	26	8	26	15	7	78	35	35	5,7
Ariplak light Neutral 72/61	81	11	12	68	10	22	71	69	3,7
Ariplak light Neutral 61/50	68	9	10	52	10	38	58	60	4,2
Ariplak light Verde 50/32	55	7	10	29	6	65	41	42	4,2
Ariplak light Azul 50/35	56	7	10	32	7	61	43	45	4,2

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ARIPLAK SOLAR - Ambience clear 6 mm/AS 12/6 mm										
TYPE OF LAYER	VISIBLE LIGHT			ENERGÍA SOLAR					U-VALUE (W/m² °C)	
	Transmission L.T.(%)	Reflection		Transmission D.E.T. (%)	Reflection E.R. (%)	Absorbption E.A. (%)	SOLAR FACTOR			
		L.R. ext. (%)	L.R. int. (%)				ISO 9050	EN 410	Air	Argon
SS-08	8	41	35	5	33	62	13	13	2,5	2,3
SS-14	14	26	37	10	23	67	18	18	2,6	2,4
SS-20	18	21	34	13	18	69	22	22	2,6	2,4
SS-32	29	12	30	22	11	67	32	32	2,7	2,5
SS-40	35	9	24	28	8	63	38	38	2,7	2,5
SS-50	46	7	20	37	6	57	47	47	2,8	2,6
SS-60	54	16	11	45	15	40	54	53	2,8	2,6
TE-15	14	24	30	9	26	65	17	17	2,7	2,5
TS-20	18	21	31	12	23	66	20	20	2,7	2,5
TBC-20	20	18	35	16	17	67	24	24	2,3	2,1
TS-30	29	14	28	19	14	67	29	29	2,7	2,5
TS-40	36	10	25	25	10	65	35	35	2,7	2,5
TS-55	51	8	20	40	7	53	49	49	2,7	2,5
SA-45+	39	21	41	37	18	45	47	47	2,8	2,6
ORO-35	28	30	24	22	27	51	30	30	2,8	2,6

Instructions for use

When using solar control glass, it is recommendable to keep in mind the possibility of thermal shock that could occur in these glasses due to high energy absorption (especially if they are body-tinted). The main causes that could provoke these thermal contrasts are:

- Factors on the outside of the building such as geographic location, orientation, inclination, possible projected shadows, etc.
- Factors inside the building such as air conditioning directed towards the glass, interior solar protection (curtains etc.).
- Factors to do with the carpentry: material, shape, colour, type of fit, etc.
- Glazing properties: type of glass, factors of absorption and transmission, thickness, dimension, condition of the edges, etc.