## **ESSENTIALS SOLAR OPTICAL INFORMATION**

The following pages contain solar optical information by pattern and color, it is important to understand the numbers and how they work best to your need.

## **OPENNESS FACTOR (OF):**

OF is a property that is often used to describe a screen material. The definition of OF is the percentage of the screen's surface area that is "open". The OF only describes one of the factors that regulates the amount of light passing through a roller shade.

The OF and color coating together will decide how open the (shade) material will become. Different material colors absorb light differently. For example, a dark colored car is hotter than a light colored car.

Sunlight that hits the shade surface is divided into three parts that together make 100 % of the incoming light. The picture below illustrates the phenomenon.

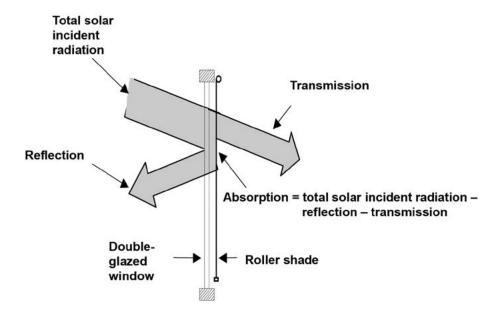
**TRANSMISSION**: One part of the light will pass through the shade, and that is the part of the light that comes into the room. *The lower the number, the better.* 

The transmission value tells how much light passes through the fabric. The transmission is dependent on three factors;

- the openness factor of the fabric
- the color of the fabric
- the coating on the fabric.

**REFLECTION**: One part of the light will be reflected when it hits the shade. The higher the number, the better.

**ABSORPTION**: The rest of the light will be absorbed by the shade. The lower the number, the better.



**UV PROTECTION (and Blackout Fabrics)**: The total solar incident radiation of wavelengths between 280 nm and 2500 nm is measured and optical values are reported. UV-light is included in these wavelengths. For those of our fabrics that are Blackout the transmission of light is 0 %. This signifies 100 % blocking of all sunlight, including UV-light. The UV-protection is 100 % for the fabric. In order to get complete blocking of the light the fabric has to be fitted so that no light is transmitted on the sides of the fabric. *The higher the number, the better.* 

## **SOLAR OPTICAL CHART**

Collection Code	Collection Name	Color	Color Name	Openness	Transmission*	Reflection*	Absorption*	UV Rating
SIB04	1% Retreat	01	Whipped Cream	1%	26	66	8	99%
SIB04	1% Retreat	02	Black Licorice	1%	0	3	96	99%
SIB04	1% Retreat	03	Dark Cocoa	1%	0	5	95	99%
SIB04	1% Retreat	04	Cheesecake	1%	12	73	15	99%
SIB04	1% Retreat	05	Silver Pearls	1%	5	58	27	99%
SIB05	3% Retreat	01	Whipped Cream	3%	30	63	8	97%
SIB05	3% Retreat	02	Black Licorice	3%	3	3	93	97%
SIB05	3% Retreat	03	Dark Cocoa	3%	3	6	91	97%
SIB05	3% Retreat	04	Cheesecake	3%	15	70	15	97%
SIB05	3% Retreat	05	Silver Pearls	3%	8	51	40	97%
SIB06	5% Retreat	01	Whipped Cream	5%	32	61	8	95%
SIB06	5% Retreat	02	Black Licorice	5%	6	3	91	95%
SIB06	5% Retreat	03	Dark Cocoa	5%	7	6	87	95%
SIB06	5% Retreat	04	Cheesecake	5%	18	66	15	95%
SIB06	5% Retreat	05	Silver Pearls	5%	11	45	44	95%
SIB07	10% Retreat	01	Whipped Cream	10%	34	59	7	90%
SIB07	10% Retreat	02	Black Licorice	10%	12	3	85	90%
SIB07	10% Retreat	03	Dark Cocoa	10%	12	6	82	90%
SIB07	10% Retreat	04	Cheesecake	10%	22	66	12	90%
SIB07	10% Retreat	05	Silver Pearls	10%	N/A	N/A	N/A	90%

<sup>\*</sup>See **SOLAR OPTICAL INFORMATION** section for detail.