

# LET'S BE CLEAR ABOUT THE SHADING VALUE OF A COATING

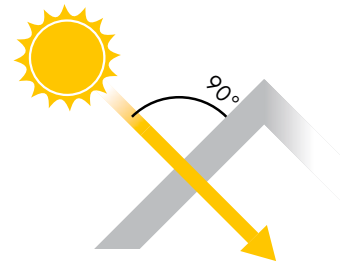
**What's the real shading value of a coating?**

**There are many ways to measure and express these values. But to provide a fair comparison, you need a consistent method that can also be used to describe the effect of advanced coatings. To provide total clarity, we will now be using a single standard: the net hemispheric shading method.**

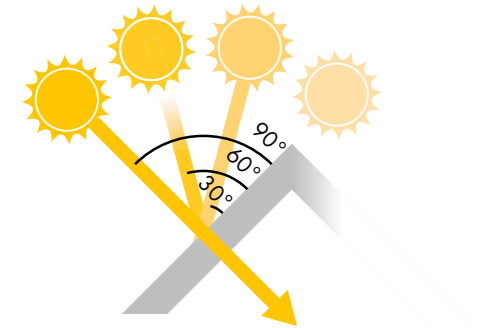
## DIRECT VERSUS HEMISPHERIC

A hemispheric measurement measures the light incidence at eight different angles to the glass, instead of perpendicular to the greenhouse cover. Because the position of the sun also varies, this provides a better indicator of the light incidence on a daily basis.

**DIRECT**



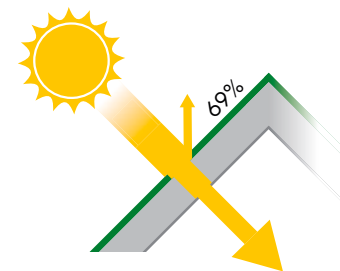
**HEMISPHERIC**



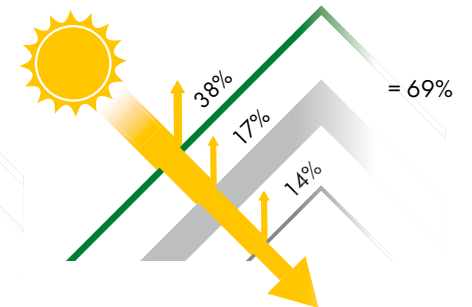
## GROSS VERSUS NET

The net shading is the coating's shading effect without the light reduction caused by the glass (average 17%) and the greenhouse structure (10-20%) added to this. So, how much additional shading does the coating provide?

**GROSS**



**NET**

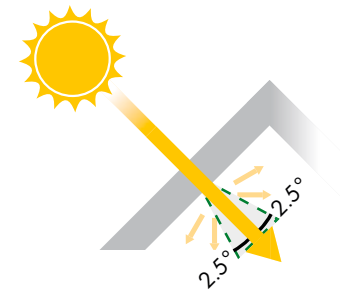


● Coating ● Glass ● Construction

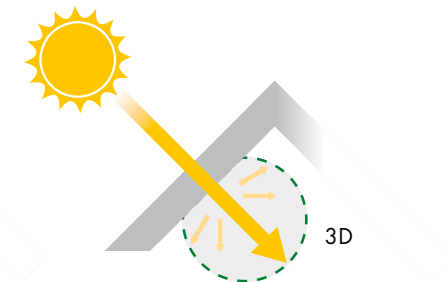
## HAZE VERSUS HORTISCATTER

The haze factor indicates how much of the perpendicular light deviates by more than 2.5° but it does not indicate the level of dispersion. The hortiscatter indicates the total dispersion and scattering of light.

**HAZE**



**HORTISCATTER**



# HEMISPHERICAL SHADING VALUES IN %

	BUCKETS/HA		GROSS SHADING INCL. GLASS & STRUCTURE		NET SHADING COATING ONLY		HAZE	HORTISCATTER
	MACHINE	MANUAL	PAR	NIR	PAR	NIR		
<b>ReduSol®</b> 20 kg = 14,2 L	25	28	68%	69%	37%	38%		
	20	22	65%	66%	34%	35%		
	15	17	60%	61%	29%	30%		
	10	11	53%	54%	22%	23%		
	5	6	45%	45%	14%	14%		
<b>ReduHeat®</b> 15 kg = 13,5 L	25	28	44%	55%	13%	24%		
	20	22	41%	50%	10%	19%		
	15	17	38%	45%	7%	14%		
<b>SprayChalk</b> 25 kg = 15,2 L	15	17	68%	68%	37%	37%		
	10	11	61%	62%	30%	31%		
	5	6	50%	51%	19%	20%		
<b>ReduFuse®</b> 15 kg = 14,9 L	20	22	37%	40%	6%	9%	82%	60%
	14	15	37%	39%	6%	8%	79%	58%
	12	13	36%	38%	5%	7%	74%	54%
	10	11	36%	37%	5%	6%	67%	49%
<b>ReduFuse® IR</b> 15 kg = 13,5 L	22	24	46%	51%	15%	20%	83%	57%
	18	20	43%	47%	12%	16%	72%	37%
	15	17	41%	44%	10%	13%	63%	25%
	10	11	37%	39%	6%	8%	45%	10%
	22	24	47%	52%	16%	21%		
<b>ReduFlex® BLUE</b> 15 kg = 13,4 L	20	22	46%	50%	15%	19%		
	18	20	44%	48%	13%	17%		
	16	18	43%	46%	12%	15%		

Net shading values are measured by Wageningen University.

**Note:** products have to be mixed with water. For machine application 1000-1500 liter spray liquid is needed per hectare.

For manual application 1800-2000 liter spray liquid per hectare is needed.



Do you want to make optimal use of sunlight all year round?

**Redusystems.com**