

# ECLOON

ECLOON – phosphorescent glass - is tempered safety glass with a special ceramic coating. Permanent activation of the coating by a UV-light source [ black light ] turns it into visible light, which shines like an area of light with a light intensity of up to 69 cd/m<sup>2</sup>.

ECLOON is available as insulated, laminated and monolithic glass.

The European patented product from the RE group in Cologne is manufactured and distributed exclusively by ECKELT GLAS GmbH.

## [ APPLICATION ]

„Self-lighting“ -facades, -logos or -designs  
Interior wall cladding, etc.



**[ SELF-ILLUMINATING-EFFECT ]**

By blacklighting or floodlight [ wall washer ] with invisible UV-black light 36W/73 Radium, only the coated area is activated and appears to be a self-illuminating body.

Absolute uniform light intensity of approx. 60 cd/m<sup>2</sup> are achieved at a horizontal distance of 50 cm from the glass.

The vertical distance of the light source should also be 50 cm in order to visualise the unusually high brightness – also in external applications in urban areas.

**GLASS TYPE SR**

Colour rendition:                   at permanent activation – phosphor yellow green  
   without activation – beige

**[ AFTERGLOW - EFFECT ]**

In absolute darkness [ Interior ] activation through daylight or artificial light is sufficient to achieve up to 10 hours of afterglow which can be seen by the human eye [ visibility limit ]. This is accordance with the requirements of DIN 67510 for phosphorescent glass.

**GLASS TYPE NT**

Colour rendition:                   afterglow in darkness – yellow green  
   in daylight – beige

**[ LIGHTING ]**

The activation of the performance coating occurs ideally with UVA-Light in the spectral area of 350 – 390 nm. Practically no visible light is apparent in this area which is why it is called UV-Black light.

UVA rays are subject to limits in order to avoid health risks!

The measurement was therefore carried out using UVA lighting tubes – which do not possess any UVB rays.

**Emission strength UVA black light**

Lamp	electr. connection ca. W	emission strength UVA (315 – 400 nm) approx. W/m <sup>2</sup>	emission strength UVB (280 – 315 nm) approx. W/m <sup>2</sup>	emission strength UVA (315 – 400 nm) with MU-G2 Filter approx. W/m <sup>2</sup>	emission strength UVB (280 – 315 nm) with MU-G2 filter approx. W/m <sup>2</sup>
Radium UVA Black NL 36W/73	36	8,0	0	no filter necessary	no filter necessary

The energy consumption under normal use is approx. 25 W/m<sup>2</sup> light area.

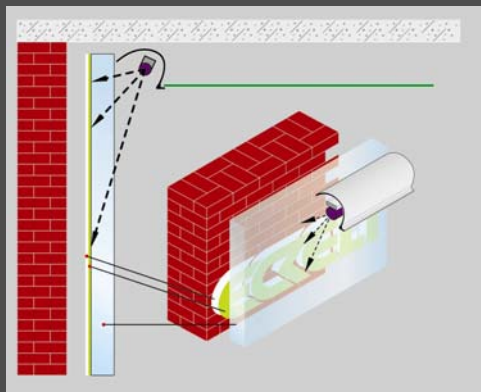
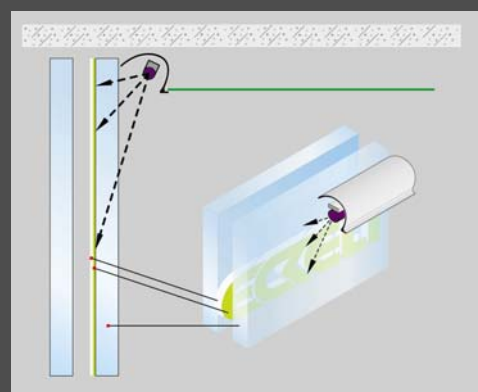
**[ FUNCTION PRINCIPLE ]**

Dispersed zinc sulfide is mixed as pigment with the ceramic coating and fused into the glass surface at a temperature of approx. 600°C during the tempering process.

Zinc sulfide is known in other applications and is activated through UV-radiation.



**[ LIGHT INTENSITY EXAMPLES ]**

**[ TECHNICAL APPLICATION NOTES ]**
**wall washer: GLASS TPYE SR ESG – BF-2WS**

**wall washer: GLASS TYPE SR VSG – BF-2WS**


L ca. 60 – 80 % > with coating / self-illumination-effect graduating approx. 2 m from light

**[ GLASS COMPOSITION ]**

glass type	background	effect	orientation light source
SR lami full / part	0	both sides normal	outside or inside
SR lami full / part	white full coverage	one-sided more intensive	viewing side
SR lami full / part	black / custom	one-sided normal	viewing side

max. dimension 200 x 400 cm

glass type	background	effect	orientation light source
SR mono full / part	white full coverage	one-sided intensive	viewing side
SR mono full / part	black / custom	one-sided normal	viewing side
SR mono <sup>1)</sup> full / part	0	both sides normal	outside or inside

<sup>1)</sup> SR coating to be constructively protected against scratching

max. dimension 200 x 400 cm

glass type	background	effect	orientation light source
SR ISO full / part # 2 or # 3	0	both sides normal	outside or inside
SR ISO full / part	white full coverage	one-sided intensive	viewing side
SR ISO full / part	black /custom	one-sided normal	viewing side

max. dimension 200 x 400 cm

glass type	Background	effect in absolute darkness	orientation light source
NT lami full	0	both sides to DIN 67510 (10 hrs.)	day- / UV-light unfiltered UV-amount, PvB-film facing away from light source
NT lami full	white	one-sided to DIN 67510 (10 hrs.), slightly improved	day- / UV-light unfiltered UV-amount, PvB-film facing away from light source

max. dimension 200 x 400 cm