

For outside windows we prefer to use Electrochromic glass. The required measurement for this type of is at the moment limited to approx 1,5 m to 1m Length/Width.

EC glass performs best in these measurements.

You can also choose SPD glass.

Suspended particle devices can be varied from a high transmission state to a lower transmission, tinted state, like electrochromics can. Applications include fast switching displays and interior dynamic mirrors. The material is organic based and fabrication method is similar to LCD, a double laminated configuration with the film inside two plastic plies encased in two glass sheets. Therefore, durability concerns prevent it being recommended for the building envelope. Also, the light modulation and energy saving performance is only moderate compared to electrochromic products. It requires 50-100V alternating current to power, and the "off" state is tinted.

The difference in their functionality, cost and effectiveness:

SPD smart glass regulates faster than ECD glass. SPD within seconds and ECD within 4 minutes. However this is not important for the performance in HVAC value. The cost of SPD glass is much higher approx EURO 1500 per m² versus approx EURO 1200 per m² for EC glass for large quantities.

Power consumption for a full transition:

Power consumption SPD = At line voltage, a maximum of about 0.06 watts of power per square foot. This occurs when the SPD product is in its fully clear state. No power is used when the product is in the fully dark state.

Power consumption ECD = EC products consume little power. It takes less electricity to power and control 1,500 square feet (approx. 140 sq.m Ter) of EC glazing (approximately 100 windows) per day than it does to power a 60-Watt light bulb.

A rough estimate of the cost, including an electronic control system:

7% to 12 % for the control system.