

## 1. QUINN CAST UVT - technical datasheet

### 1.1. Product identification

QUINN CAST UVT is specially designed for application in sun beds and solariums. Its formula has been updated to improve the lifetime of the sheet and to resist degradation by UV exposure.

### 1.2. Characteristics

QUINN CAST UVT has a high transmission of UV-A, with UV-B rays being transmitted at a lower level. It is resistant to radiation having a damaging effect on polymers.

QUINN CAST UVT sheets are highly transparent and they have a smooth surface (matt surface is also available upon request).

They have a good surface resistance and an excellent chemical resistance.

### 1.3. Applications

- Sun beds
- Solariums

### 1.4. Fabricating and finishing techniques

Due to their mechanical properties, they are easy to thermoform.

To avoid damage during transport and handling, they are supplied protected with PE film on both surfaces. Upper surface can be protected with special film for thermoforming (upon request).

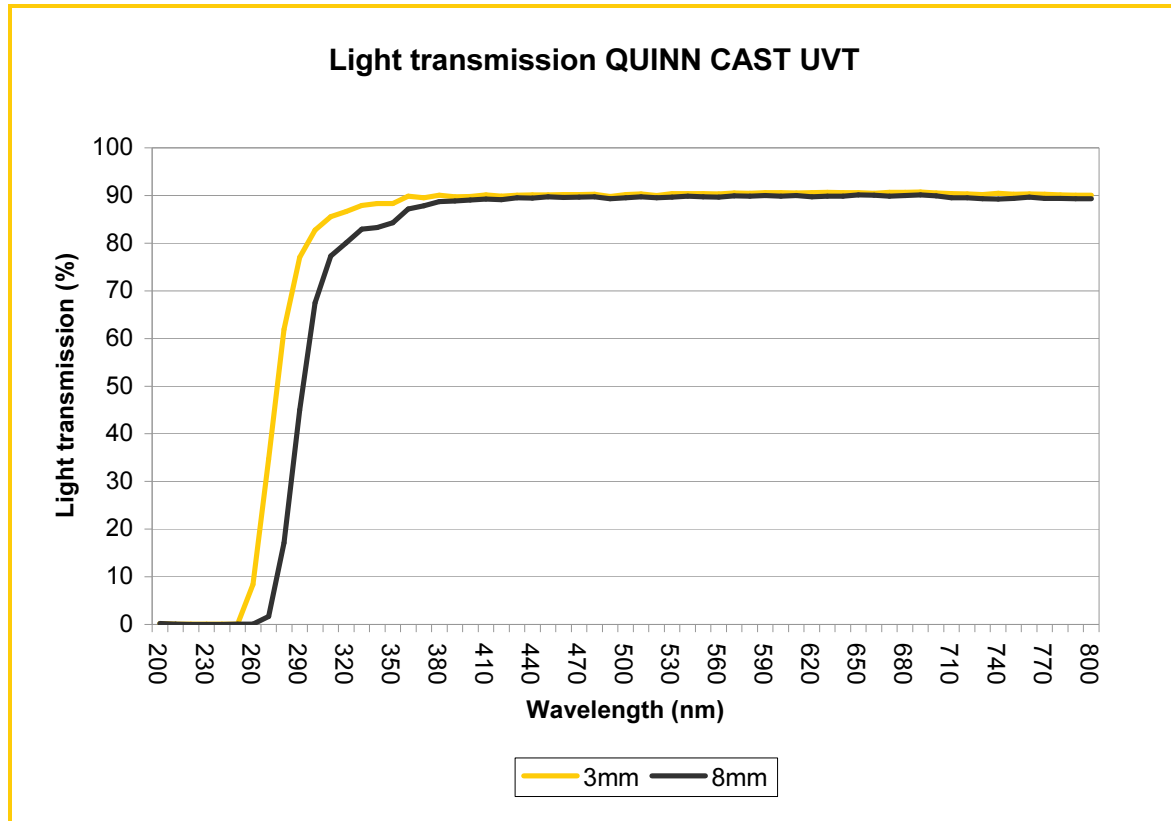
More detailed information on these items can be found in the "USER GUIDE", available on request.

### 1.5. Technical information

<b>OPTICAL</b>			
<b>Property</b>	<b>Method</b>	<b>Units</b>	<b>QUINN CAST UVT</b>
Light transmission (between 290-380 nm)			> 90%
<b>MECHANICAL</b>			
<b>Property</b>	<b>Method</b>	<b>Units</b>	<b>QUINN CAST UVT</b>
Tensile Modulus	ISO 527	MPa	3000
Tensile strength	ISO 527	MPa	70
Flexural strength	ISO 178	MPa	120
<b>THERMAL</b>			
<b>Property</b>	<b>Method</b>	<b>Units</b>	<b>QUINN CAST UVT</b>
VICAT softening temperature VST/A50	ISO 306	°C	>105
Maximum temperature (continuous use)		°C	70
Thermoforming/bending temperature		°C	110-180

NOTE: Data measured in 3mm

## 1.6. Light transmission



## 1.7. UV light transmission/resistance

The UV light spectrum is defined as wavelengths below 380 nm. Yellowing and degradation of plastics is caused by low wavelength (high energy light).

QUINN CAST UVT is a specialty of Quinn Plastics with a high transmission of UV light but it is protected at the same time from dangerous radiation. Light transmission of the material in UV range (from 290-380nm) is >90%.

Stability of the material after exposure has been tested in real sun bed equipment (UV-A/UV-B light 2.4%). Changes in transmission properties after exposure have been minimized in this formula. Light transmission 290-380nm > 85% after 3000h sun bed exposition.

Material inner properties produce a yellowness index increase at few hours of exposition but the materials recovers the initial aspect in few hours and remains stable for long term exposition. Changes in yellowness index are not visually appreciated. Total light transmission remains constant for long term exposition.

