

Comparison between virgin acrylic sheet and recycled acrylic sheet

Virgin acrylic sheet	Recycled acrylic sheet
Excellent in anti-UV and will not turn yellowish and fade at least 5 years	Poor in anti-UV and become yellowish easily, as well as fade and crack
Rate of light transmittance >92%	Rate of light transmittance <80%
Clear at the section and keep original after fabrication	It turns yellowish at the section. Although the recycled acrylic sheet with whitener has a lower yellowish degree, will still become yellowish after a short term
No smell	It becomes yellowish quickly after fabrication and generates pungent odor
Excellent in crack resistance and good chemical tolerance	Inferior in dissolvent and chemical tolerance, easy to crack

Methods of identifying recycled acrylic sheet

1. See: The appearance of recycled acrylic sheets is yellowish, especially apparent in horizontal angle.
2. Touch: The surface is easy to be scratched.
3. Smell: The recycled acrylic sheet has a strong pungent odor no matter in stock or in fabrication. When burning, there will have bubble and black smoke as well as bad smell.
4. The recycled acrylic sheet tends to deform and generate bubbles in the process of thermoform.
5. Then recycled acrylic sheet is sensitive to paint and ink, easy to generate silver lines and crack.
6. The recycled acrylic sheet tends to become yellowish after exposing to sunshine
7. It is inferior in dissolvent tolerance and easy to crack.