

Polycarbonates such as Makrolon/TUFFAK (Makrolon is now known as TUFFAK) efforts to emulate Acrylics inherent attributes need to utilize coatings. Once coating is scratched or broken then UV is allowed to damage the polycarbonate sheet internally.

	Makrolon Marine 5	Makrolon AR	Makrolon VR	AquaGlas® Acrylic	clear2sea™ Acrylic	clear2sea _{UV} ™ Acrylic	cool2sea™ Acrylic
Optically clear	✓	✓	✓	✓	✓	✓	✓
Low distortion	✓	✓	✓	✓	✓	✓	✓
Abrasion resistance	coated	coated	not	inherent	inherent	inherent	inherent
Wrinkle free	✓	✓	✓	✓	✓	✓	✓
Sewable	✓	✓	✓	no	no	no	no
Rollable	no	no	?	no	no	no	no
5 year warranty	*	no	**	?	8yrs***	8yrs***	8yrs***
Curved applications	.080/30",.060/20"	no	✓	?	.080/18"	.080/18"	.080/18"
Bent applications	no	no	?	heat	heat	heat	heat
Proven performance	new	failed curves	?	since 2009	since 2011	since 2011	since 1989
Buffable	no	no	no	difficult	yes	yes	yes
Color distortion	(1) <u>inherent to polycarbonate</u>			no	no	no	no
heat blocking	no	no	no	no	no	no	yes
enhanced night vision	no	no	no	no	no	no	yes
glare reduction	no	no	no	no	no	no	yes

*warranty covers breakage, microcracks over .5" when more that 25% of entire panel when seen from distance of 3', yellowing of 5 points.

**warranty for breakage only if it breaks in a brittle manner into separate pcs with sharp edges.

***warranty that light transmittance of panel will not change by more that 3% over a period of Eight years.

(1) Inherent to polycarbonate; when looking through polycarbonate with polarized glasses, at extreme angles and various light conditions one may see a rainbow effect of colors similar to that of oil on water.