iKnow SENSORS

Supplemental Information

Relative Chemical Resistance of Sensor Housing Materials and Lenses

	Resistance to:						
Housing Material	**Industrial Solvents**	**Dilute Acids**	**Concentrated Acids**	**Dilute Caustic Alkalis**	**Concentrated Caustic Alkalis**	**10% Sodium Hydroxide in Steam**	**Sunlight and Weathering**
Thermoplastic Polyester	*Attacked by: acetone, MEK, and methylene chloride* ◎	●	⊙	○	○	○	⊙
Polycarbonate	*Attacked by: acetone, MEK, and methylene chloride* ○	⊙	◎	○	○	○	⊙
Polyphenylene oxide (PPO)	*Attacked by: chlorinated hydrocarbons[1]* ◎	⊙	◎	●	⊙	⊙	●
Acetal	⊙	◎	○	◎	○	◎	⊙
Epoxy-coated zinc-aluminum alloy	⊙	⊙	◎	⊙	◎	◎	●
Anodized Aluminum	●	◎	○	⊙	◎	◎	⊙
Stainless Steel	●	◎	○	●	⊙	⊙	⊙
PVC (Polyvinyl-chloride)	*Attacked by: acetone, MEK, and methylene chloride* ◎	⊙	◎	●	●	●	⊙
Polyethylene	*Attacked by: chlorinated hydrocarbons[1]* ◎	●	●	⊙	⊙	⊙	○
ABS	*Attacked by: acetone, MEK, esters, ketones, and chlorinated hydrocarbons* ○	⊙	○	⊙	⊙	⊙	◎

	Resistance to:						
Lens Material	**Industrial Solvents**	**Dilute Acids**	**Concentrated Acids**	**Dilute Caustic Alkalis**	**Concentrated Caustic Alkalis**	**10% Sodium Hydroxide in Steam**	**Sunlight and Weathering**
Glass[2]	●	⊙	◎	●	⊙	⊙	●
Acrylic[3]	○	◎	○	⊙	◎	◎	⊙
Polysufone	*Attacked by: chlorinated hydrocarbons[3]* ◎	◎	○	◎	○	○	○
Polycarbonate	*Attacked by: acetone, MEK, and methylene chloride* ○	⊙	◎	○	○	○	⊙

Key to Performance

Rating		% Retention to Strength	Degree of Attack
●	Excellent	85 to 100%	Slight (or no) attack
⊙	Good	75 to 84%	Moderate attack
◎	Fair	50 to 74%	Noticeable swelling softening, etching or corrosion
○	Poor	<50%	Severe degradation

NOTES:

[1] Chlorinated hydrocarbons include Freon, methylene chrloride, trichlorethane, and trichloroethylene.

[2] Plastic lens covers are available for some sensors to meet FDA requirements.

[3] Glass covers are available for some sensors to protect the acrylic lens.