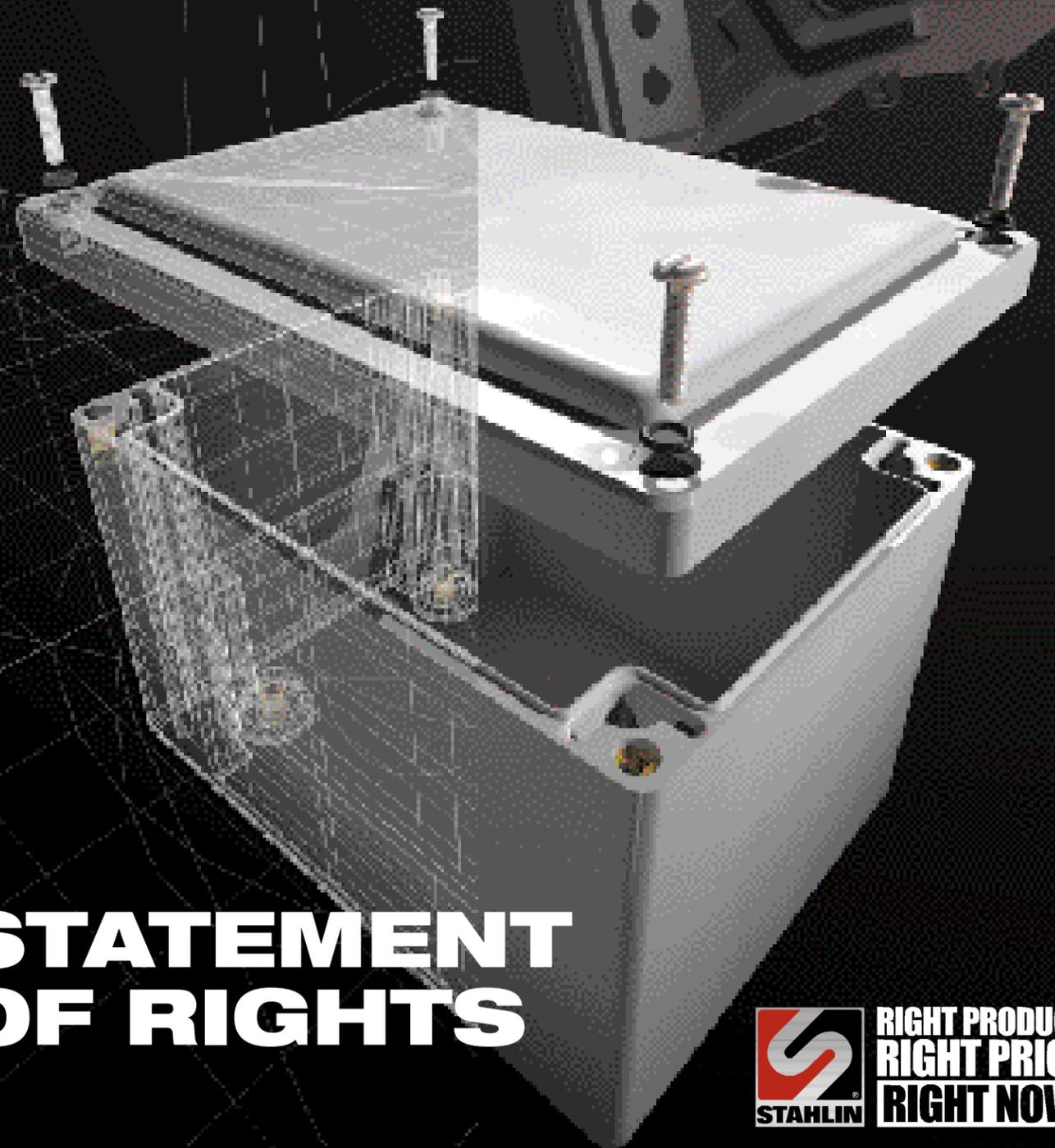


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**STAHLIN®  
NON-METALLIC  
ENCLOSURES**



**Non-Metallic  
Enclosures**

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**STATEMENT  
OF RIGHTS**



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# STAHLIN® RIGHT REASONS VERSUS METALLICS

## Why Stahlin? Why Non-Metallics Instead of Metallics?

### Right Reason #1: Corrosion & Chemical Resistance

- Stahlin non-metallic enclosures provide excellent corrosion and chemical resistance compared to metallics such as aluminum and painted or galvanized steel...and is very comparable to that of stainless steel. With non-metallics, enclosure maintenance is virtually eliminated.

### Right Reason #2: Electrical Insulation

- Stahlin non-metallic enclosures provide optimal dielectric strength as an electrical insulator versus the electrical conductivity of all metals. Non-metallic enclosures do not require grounding to ensure safety against indirect and direct contact.

### Right Reason #3: Cost Savings

- Stahlin non-metallic enclosures are significantly more cost effective than stainless steel and are very competitive with other metallics.

### Right Reason #4: Ease-Of-Customizing

- Stahlin non-metallic enclosures are extremely easy to drill, punch and cut compared to all metals. Retrofitting is eliminated because of the ability to modify fiberglass with knock-out panels and windows.

### Right Reason #5: Ease-Of-Handling

- Stahlin non-metallic enclosures are lightweight and easy to handle compared to metal enclosures.

# STAHLIN RIGHT REASONS VERSUS NON-METALLICS

## Why Stahlin? Why Fiberglass Instead of Other Non-Metallics?

### Right Reason #1: Corrosion Resistance

- Stahlin's fiberglass provides better acidic and alkaline-based environmental corrosion resistance than plastics such as polycarbonate... and superior solvent-based corrosion resistance to materials including ABS and Noryl®.

### Right Reason #2: Chemical Resistance

- Stahlin's fiberglass provides chemical resistance that exceeds all other major non-metallic alternatives.

### Right Reason #3: Impact Resistance

- Stahlin's fiberglass provides impact resistance that is greater than that of ABS and Noryl®.

### Right Reason #4: Physical Strength

- Stahlin's fiberglass provides relative physical strength that exceeds ABS and Noryl®.

### Right Reason #5: UV Resistance

- Stahlin's fiberglass is excellent with inhibitors and colors, surpassing the UV resistance performance of ABS, Noryl® and polycarbonates. SolarGuard™, our proprietary, patent-pending, non-halogenated SMC formulation outperforms available alternatives by as much as 60% in its ability to retain gloss and color through unequaled UV resistance.

## Why do we call this a Statement of Rights?

Because this factual, comparative guide states the proven reasons why Stahlin® Non-Metallic Enclosures are the "right" choice for you.

We are proud to state that the quality performance of our products makes Stahlin the most specified fiberglass electrical enclosures in the world. A review of the property and feature comparisons in this brochure will underscore the reasons why we can clearly state that Stahlin brings you the:

**RIGHT PRODUCT  
RIGHT PRICE  
RIGHT NOW**

The proof is in our performance!

	Stainless Steel	Aluminum	Mild Steel (Painted)	Mild Steel (Galvanized)	Polyester Fiberglass	ABS	PVC	Noryl®	Poly-carbonate
<b>Relative Physical Strength</b>	High	Average	High	High	Average	Low	Low	Low	Average
<b>Corrosion Resistance</b>	<ul style="list-style-type: none"> <li>• Acids: Recommended in most applications.</li> <li>• Alkalines: Recommended in most applications.</li> <li>• Solvents: Recommended in most applications.</li> </ul>	<ul style="list-style-type: none"> <li>• Acids: Limited use in most applications.</li> <li>• Alkalines: Very limited use in most applications.</li> <li>• Solvents: Recommended in most applications.</li> </ul>	<ul style="list-style-type: none"> <li>• Acids: Limited use in most applications.</li> <li>• Alkalines: Acceptable in many applications.</li> <li>• Solvents: Acceptable in most applications.</li> </ul>	<ul style="list-style-type: none"> <li>• Acids: Very limited use in most applications.</li> <li>• Alkalines: Acceptable in many applications.</li> <li>• Solvents: Acceptable in many applications.</li> </ul>	<ul style="list-style-type: none"> <li>• Acids: Recommended in most applications.</li> <li>• Alkalines: Recommended in most applications.</li> <li>• Solvents: Recommended in most applications.</li> </ul>	<ul style="list-style-type: none"> <li>• Acids: Recommended in many applications.</li> <li>• Alkalines: Recommended in many applications.</li> <li>• Solvents: Limited to a very few applications.</li> </ul>	<ul style="list-style-type: none"> <li>• Acids: Recommended in most applications.</li> <li>• Alkalines: Recommended in most applications.</li> <li>• Solvents: Recommended in most applications.</li> </ul>	<ul style="list-style-type: none"> <li>• Acids: Recommended in most applications.</li> <li>• Alkalines: Recommended in most applications.</li> <li>• Solvents: Very limited application.</li> </ul>	<ul style="list-style-type: none"> <li>• Acids: Limited use in most applications.</li> <li>• Alkalines: Very limited use in most applications.</li> <li>• Solvents: Recommended in most applications.</li> </ul>
<b>Chemical Resistance</b>	(72%) Excellent	(42%) Good	(26%) Poor	Poor	(66%) Excellent	Moderate	(51%) Very Good	(44%) Good	(43%) Good
<b>Relative Cost</b>	Moderate to High	Moderate	Low	Low to Moderate	Low to Moderate	Low	Low	?	Low to Moderate
<b>Impact Resistance</b>	(Izod, 110 ft-lb/in @ 1/8") Very High		(Charpy 35 ft-lb @ 70°F) Very High	(Charpy 35 ft-lb @ 70°F) Very High	(7-22 ft-lb/in @ 1/8") Moderate	(3.0 ft-lb/in @ 1/8") Low	(0.4-1.0 ft-lb/in @ 1/8") Low	(5 ft-lb/in @ 1/8") Low Moderate	(12-14 ft-lb/in @ 1/8") Moderate
<b>Tensile Strength</b>	75,000 psi Very High	28,000 psi High	63,000 psi Very High	63,000 psi Very High	8,000 psi	5,500 psi Low	4,200 psi Low	8,000 psi	10,000 psi
<b>Temperature Range</b>	1700°F Very High	-40°C(F) to 500°F Medium High	High	High	-40°C(F) to 121°C(250°F) Moderate	20°C(-4°F) to 65°C(149°F) Low	-40°C(F) to 95°C(200°F) Moderate	100°C(212°F) Moderate	-35°C(-31°F) to 120°C(248°F) Moderate
<b>UV Resistance</b>	Excellent	Excellent	Excellent	Excellent	<ul style="list-style-type: none"> <li>• Excellent with Inhibitors and Color</li> <li>• Unequaled Protection of Gloss and Color Because of Stahlin's SolarGuard™ SMC Formulation</li> </ul>	Not Recommended	Excellent with Inhibitors and Color	Good	Good
<b>Ease of Drilling, Punching and Cutting</b>	Hardest	Less Hard	Hard	Hard	Very Easy	Very Easy	Very Easy	Easy	Easy
<b>Dielectric Strength</b>	Electrical Conductor	Excellent Electrical Conductor	Electrical Conductor	Electrical Conductor	(380 volts/mil) Electrical Insulator	(350 volts/mil) Electrical Insulator	(350 volts/mil) Electrical Insulator	(500 volts/mil) Good Electrical Insulator	(380 volts/mil) Electrical Insulator
<b>Thermal Conductivity</b>	(0.070 cal-cm/sec-cm <sup>2</sup> -°C) Thermal Conductor	(0.361 cal-cm/sec-cm <sup>2</sup> -°C) Good Thermal Conductor	(0.115 cal-cm/sec-cm <sup>2</sup> -°C) Thermal Conductor	(0.0115 cal-cm/sec-cm <sup>2</sup> -°C) Thermal Conductor	(.00012 cal-cm/sec-cm <sup>2</sup> -°C) Thermal Insulator	(.00045 cal-cm/sec-cm <sup>2</sup> -°C) Thermal Insulator	(.00035 cal-cm/sec-cm <sup>2</sup> -°C) Good Thermal Insulator	(.00052 cal-cm/sec-cm <sup>2</sup> -°C) Thermal Insulator	(.00047 cal-cm/sec-cm <sup>2</sup> -°C) Thermal Insulator
<b>Weight</b>	(489 lb/ft <sup>3</sup> ) Heavy	(168.6 lb/ft <sup>3</sup> ) Moderate	(490 lb/ft <sup>3</sup> ) Heavy	(490 lb/ft <sup>3</sup> ) Heavy	(110.5 lb/ft <sup>3</sup> ) Light	(65.9 lb/ft <sup>3</sup> ) Lighter	(81.2 lb/ft <sup>3</sup> ) Light	(64.9 lb/ft <sup>3</sup> ) Lighter	(89.9 lb/ft <sup>3</sup> ) Light

The information above is believed to be accurate, but not warranted so. Statements of comparison to other non-metallics are based on generic formulations of compounds.