



Vitreous Enamel Tanks vs. Stainless Steel Tanks

There are two main types of solar storage tanks used for solar hot water systems, stainless steel and vitreous enamel (glass-lined) tanks.

To assist you in choosing the right tank for your solar hot water system that best suits your requirements, below are the main differences between stainless steel tanks and vitreous enamel tanks.

Choosing the right type of tank will minimise ongoing expenses and prolong the life of your solar hot water system.

Which tank should you choose?

 <p>Vitreous Tanks</p>	 <p>Stainless Steel Tanks</p>
<ul style="list-style-type: none"> • Are made of mild steel with a thin vitreous enamel (glass-line) coating inside. • High water temperatures cause higher stresses on the tank, increasing potential damage of the vitreous enamel coating. • Require a “sacrificial anode” to reduce corrosion in the tank. Anodes require periodic checking and replacement every 4-5 years. Replacement costs are around \$150-\$300 per replacement. • Covered under a shorter warranty; generally 5-7 years. • Generally lower upfront cost than stainless steel tanks. • In areas with hard water or poor water qualities, the sacrificial anode will require more frequent replacements. 	<ul style="list-style-type: none"> • Are generally made from one of three grades of stainless steel: 304, 316 (Marine Grade) and 2205 (Duplex). • Better suited to store high temperature water (able to sustain temperatures in excess of 85°C). • Less prone to corrosion, especially 316 and 2205 grades. Stainless Steel has a protective natural oxide barrier and don’t require a “sacrificial anode”. Requires minimal to no maintenance, hence lower running costs. • Are covered under a longer warranty; generally 10-20 years. • Generally higher initial investment than vitreous enamel tanks. • In areas with poor water quality, the premium 2205 Grade should be used (most Australian capital cities and major regional centres have water qualities suitable for lower grade stainless steel tanks).



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Sources:

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