

## Wagners Composite Fibre Technologies (CFT)

## Trident Marine Pile

Waterfront moorings are set to be revolutionised with the new Trident Marine Pile designed to perform for 50-years and reduce impact to berthing vessels.

Manufactured in Australia from Fibre Reinforced Polymer (FRP) with an integrated HDPE sleeve, the dynamic properties of the Trident Marine Pile allows it to yield before returning to its original state, which significantly reduces the risk of impact damage to berthing craft.

Twice as strong as steel, Trident Marine Piles are also inert and will not rot, rust or corrode. And with no-electrolysis, boat and marina hardware is safe from damage.

Acid sulfate soils, UV rays and marine borers are no match for the Trident Marine Pile which is non-toxic and non-leaching so safe for marine ecosystems. Plus, with less embodied carbon than traditional materials Trident Marine Piles will contribute towards cooling the planet.

## **Performance Advantages**

$\overline{\square}$	Durable - 50 year design life
$\bigcirc$	Strong - twice as tough as steel
	Inert - will not rot, rust or corrode
X	No-electrolysis - no damage to boat & marine hardware
	Resistant - acid sulfate soils, UV rays & marine borers
<u>\\</u>	Yield technology - reduced risk of impact damage
$\swarrow$	Non-leaching & non-toxic - safe for marine ecosystems
	Reduced embodied carbon - fight global warming
<b>S</b>	<b>Low maintenance</b> - reduced inspection / replacement requirements
<b>6</b>	Australian manufactured
$\bigotimes$	Integrated HDPE sleeve - one installation
$\checkmark$	Easy installation - hammer or vibro-driven



## **Technical Data**

Property	Notation	UOM	WGN - C5000	WGN - C8000
Outer Dimension	Do	mm	301	356
Wall Thickness	t	mm	13.5	13.5
Cross Sectional Areas	А	mm <sup>2</sup>	12193	14526
Surface Area	SA	m²/m	0.95	1.12
Moment of Inertia	Ι	mm <sup>4</sup>	126.26x10 <sup>6</sup>	213.33x10 <sup>6</sup>
Weight	W	kg/m	24.64	29.49
Moment Capacity	Mu	kN.m	250	384
Full Section Flexural Modulus	E	GPa	40	40
Tensile Strength (L)	$F_{Lt}$	MPa	635	635
Tensile Modulus (L)	E <sub>Lt</sub>	MPa	35405	35405
Compressive Strength (L)	F <sub>Lc</sub>	MPa	395	395
Compressive Modulus (L)	ELc	MPa	41178	41178
In Plane Shear Stress (L)	F <sub>Lv</sub>	MPa	93	93





Wagners CFT meets the international management standards for:





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