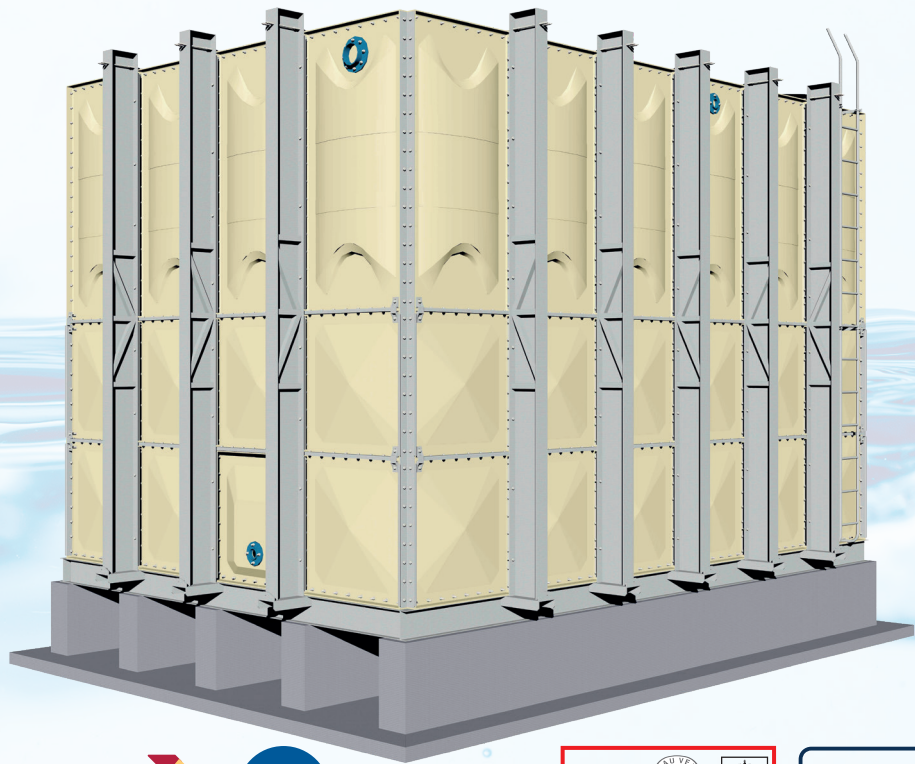


PROVIDING LIQUID STORAGE SOLUTIONS SINCE 1966

## GRP PANEL TYPE WATER TANK



بلدية دبي  
DUBAI MUNICIPALITY



Developed in  
Partnership With

**BASF**  
The Chemical Company

# Solico GRP Panel Type Water Tank

Since 1966 SOLICO has been known as a reputed supplier of GRP water storage solutions in the UAE and GCC countries.

In 1984, SOLICO pioneered the introduction of groundbreaking technology, Hot Pressed GRP Panel Type Water Tanks, gaining market share by offering the top of the range Japanese Bridgestone Brand with high levels of service and reliability.

This innovation, coupled with SOLICO's awareness and continuous marketing efforts for clean water storage systems resulted in a paradigm shift, from the conventional storage means to a cleaner and healthier solution.

In 2012, SOLICO inaugurated its own Hot Pressed SMC state of the art GRP Panel Type Water Tanks; the Solico Panel Tank Brand developed in partnership with BASF.

With this new Brand, the company continues to offer the same high quality product complying with numerous international standards, combined with our enhanced service level and competitiveness.

This decision was taken to capitalize on the company's extensive composite manufacturing experience as well as SOLICO's excellent reputation for their service and quality in the Hot Pressed GRP tank business after nearly 50 years.





# Design Standards

Solico Panel Tanks are certified by NSF 61 (USA), WRAS (UK) & Dubai Municipality (DCLD-UAE) and designed to the most relevant international GRP panel type water tank's standards such as BS EN 13280, BS 7491 (UK), SS245 (Singapore) and the latest AWWA D121-12 (USA).

The panel shapes are designed using Finite Element Analysis to allow optimization and ensure the required panel and tank safety factor.

Solico Panels are manufactured using State of the Art SMC Hot Press Molding Process, combining Japanese technology and German machinery under pressure reaching up to 2,000 Tons and at a temperature of 150°C. These panels are manufactured using specialized **isophthalic resins** for safe storage of potable water and to ensure **anti-bacterial & UV resistant properties**.

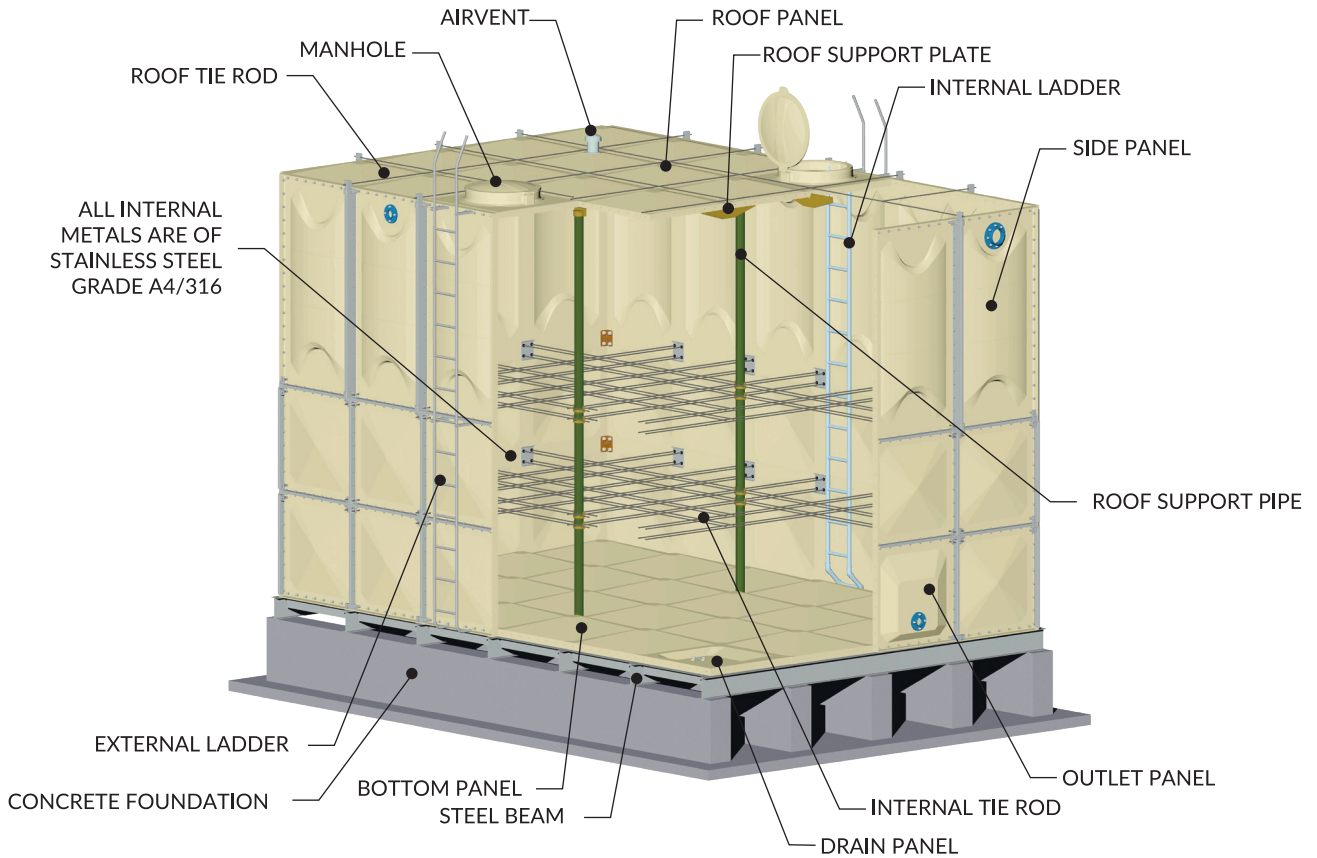


- Panel Strength : Hydrostatic Pressure x6 (Safety Factor)
- Wind Velocity : 60 m/sec
- Roof Load : 120 Kgf/m<sup>2</sup>
- Ambient Temperature : 55 °C (Max)
- Water Temperature : 60 °C (Max)
- Seismic Load : CLASS A (S1 = 0.18, Ss = 0.36)
- Seismic Zone : B2
- Upgraded Design Available for Higher Seismic Zones:
  - CLASS B (S1 = 1.00, Ss = 2.00)
  - CLASS C (S1 = 1.50, Ss = 3.50)

# Technical Characteristics

DESCRIPTION		GRP	DESCRIPTION		GRP
Specific Gravity	1.80		Thermal Conductivity	(Single Panel)	0.096 w/mK
Glass Content	33%			(Insulated Panel 25mm)	0.036 w/mK
Tensile Strength	100 MPa			(Insulated Panel 50mm)	0.029 w/mK
Young's Modulus	13 GPa		Coeff. of Overall Heat Transmission (Thermal Conductance)	(Single Panel)	13.48 w/m <sup>2</sup> K
Flexural Strength	220 MPa			(Insulated Panel 25mm)	0.97 w/m <sup>2</sup> K
Impact Strength	80 Kgf.cm/cm <sup>2</sup>			(Insulated Panel 50mm)	0.46 w/m <sup>2</sup> K
Compressive Strength	300 MPa		Thermal Expansion		1.66 x 10 <sup>-5</sup> /°C
Shear Strength	100 MPa		Water Absorption		Less than 0.1%
Barcol Hardness	66		Light Transmission	Ivory	0.0%
Flame Spread (FSI)	60		Fire Rating Class	B / 2	
Smoke Development (SD)	40				

# Internal Tie Rod Reinforcement



# External Bracing Reinforcement

