PRODUCT CERTIFICATE OF REGISTRATION

GRAF PLASTICS AUSTRALIA PTY LTD

43b Sparks Road, Henderson, WA 6166, Australia

Product Performance Testing

AS/NZS 1546.1:2008

Tank Model	Description	Additional product Information	Manufactured and assembled
Platin XL 10,000 litres Platin XL 15,000 litres Platin XXL 20,000 litres Platin XXL 25,000 litres Platin XXL 30,000 litres Lilo XL 10,000 litres Lilo XL 15,000 litres Lilo XXL 20,000 litres Lilo XXL 25,000 litres Lilo XXL 30,000 litres Rondus 3000 litres Columbus 6,500 litres Diamant 2200 litres Diamant 3350 litres Carat XL 8,500 litres Carat XL 10,000 litres	Rotationally moulded polyethylene tank	Wall, roof and floor thickness >6mm Tank lid burial depth = ground level	Manufactured Otto Graf GmbH Tenigen Germany Assembled 43b Sparks Road, Henderson, WA 6166, Australia
Platin 1500 litres Platin 3000 litres Platin 5000 litres Platin 7500 litres Lilo 1500 litres Lilo 3000 litres Lilo 5000 litres Lilo 7500 litres Sapphire 600 litres Sapphire 900 litres Sapphire 1200 litres Sapphire 1500 litres			Manufactured and assembled 43b Sparks Road, Henderson, WA 6166, Australia

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Evan Miller - General Manager
Global Certification Pty Ltd

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CERTIFICATION DATE:	DATE OF ISSUE:	EXPIRY DATE:	CERTIFICATE #:
28 October 2013	11 July 2025	28 October 2029	5669-3054-04

Global Certification Pty Ltd is accredited by The Joint Accreditation System of Australia and New Zealand (www.jas-anz.org/register) – accreditation number: Z4480410AC

CERTIFICATE OF ADDITIONAL PRODUCT

GRAF PLASTICS AUSTRALIA PTY LTD

5669-3054-04

Product Performance Testing

AS/NZS 1546.1:2008

Tank Model	Description	Additional Product Information	Manufactured and assembled
Super.Compact 2,000 litres Super.Compact 3,000 litres Super.Compact 4,000 litres Super.Compact 5,000 litres Super.Compact 10,000 litres SuperStrong 600 litres SuperStrong 900 litres SuperStrong 1,200 litres SuperStrong 1,500 litres Carat XXL 16,000 litres Carat XXL 22,000 litres Carat XXL 26,000 litres Carat XXL 28,000 litres Carat XXL 32,000 litres Carat XXL 34,000 litres Carat XXL 36,000 litres Carat XXL 38,000 litres Carat XXL 40,000 litres Carat XXL 42,000 litres Carat XXL 44,000 litres Carat XXL 46,000 litres Carat XXL 48,000 litres Carat XXL 50,000 litres Carat XXL 52,000 litres Carat XXL 54,000 litres Carat XXL 56,000 litres Carat XXL 58,000 litres Carat XXL 60,000 litres Carat XXL 62,000 litres Carat XXL 64,000 litres Carat XXL 66,000 litres Carat XXL 68,000 litres Carat XXL 70,000 litres Carat XXL 72,000 litres Carat XXL 74,000 litres Carat XXL 76,000 litres Carat XXL 78,000 litres Carat XXL 80,000 litres Carat XXL 82,000 litres Carat XXL 84,000 litres	Rotationally moulded polyethylene tank	Wall, roof and floor thickness >6mm Tank lid burial depth = ground level	Manufactured and assembled 43b Sparks Road, Henderson, WA 6166, Australia

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Tank Model	Description	Additional Product Information	Manufactured and assembled
Carat XXL 86,000 litres Carat XXL 88,000 litres Carat XXL 90,000 litres Carat XXL 92,000 litres Carat XXL 94,000 litres Carat XXL 96,000 litres Carat XXL 98,000 litres Carat XXL 100,000 litres Carat XXL 102,000 litres Carat XXL 104,000 litres Carat XXL 106,000 litres Carat XXL 108,000 litres Carat XXL 110,000 litres Carat XXL 112,000 litres Carat XXL 114,000 litres Carat XXL 116,000 litres Carat XXL 118,000 litres Carat XXL 120,000 litres Carat XXL 122,000 litres Carat XXL 124,000 litres Carat XXL 126,000 litres Carat XXL 128,000 litres Carat XXL 130,000 litres Carat XXL 132,000 litres Carat XXL 134,000 litres Carat XXL 136,000 litres Carat XXL 138,000 litres Carat XXL 140,000 litres Carat XXL 142,000 litres Carat XXL 144,000 litres Carat XXL 146,000 litres Carat XXL 148,000 litres Carat XXL 150,000 litres Carat XXL 152,000 litres Carat XXL 154,000 litres Carat XXL 158,000 litres Carat XXL 160,000 litres Carat XXL 164,000 litres Carat XXL 170,000 litres	Rotationally moulded polyethylene tank	Wall, roof and floor thickness >6mm Tank lid burial depth = ground level	Manufactured and assembled 43b Sparks Road, Henderson, WA 6166, Australia

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Tank Model	Description	Additional Product Information	Manufactured and assembled
Carat 2,700 litres Carat 3,750 litres Carat 4,800 litres Carat 6,500 litres Herkules 1,600 litres	Injection moulded polypropylene tank, lid, partitions (if required), access and inspection covers.	Wall, roof and floor thickness >6mm Tank lid burial depth = ground level Note:- When the Carat tanks are installed with baffles special wedges must be used to secure the baffle if the system is for secondary treatment. The carat tanks must be installed as specified by the manufacturer which must be available with the delivered carat tank/s. A summary of the instructions is attached to this certificate for information purposes.	Manufactured Otto Graf GmbH Tenigen Germany Assembled 43b Sparks Road, Henderson, WA 6166, Australia

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Overview of the Install Instructions for a Carat Tank

Safety

The relevant accident prevention regulations must be observed during all work. Particularly when walking on the tanks, a 2nd person is required to secure the tank. The relevant regulations and standards must additionally be taken into consideration during installation, assembly, servicing, repair, etc. During all work on the system or parts of the system, the entire system must always be rendered inoperable and secured to prevent unauthorised reactivation. Except in the event of work carried out in the tank, the cover of the tank must always be kept sealed.

Proposed construction site

Under all circumstances, the following points must be clarified prior to installation:

- The structural suitability of the ground.
- Maximum groundwater levels which occur and drainage capability of the subsoil.
- Types of load which occur, e.g. traffic loads.
- Expert ground report should be requested from the local planning authority to determine the physical characteristics of the subsoil (Geotechnical Report).

Pre-Installation

- Make sure the tank has been ordered with in the correct height to finished ground level,
- The tank has been delivered undamaged.

Installation conditions

- Trench: Make sure that enough space is available for working around the tank, the base area of the trench must exceed the dimensions of the tank by 500 mm on each side.
- The distance from solid constructions must be at least 1000 mm.
- The trench embankment must be designed so that slippage or collapse of the embankment wall is not to be anticipated.
- The construction site must be horizontal and levelled to guarantee enough loadbearing capacity.
- The depth of the trench must be dimensioned so that the max. earth coverage (see installation conditions) above the tank is not exceeded.
- To use the system throughout the entire year, it is necessary to install the tank and those parts of the system which conduct water in the frost-free area.
- The frost-free depth is usually approx. 600 mm – 800 mm; precise information in this regard can be obtained from the responsible authority.
- A layer of compacted, round-grain gravel (grain size 8 – 16mm, thickness approx. 150 - 200 mm) is applied as the foundation.
- Slope, embarkment. On installation of the tank in the immediate proximity (< 5 m) of a slope, earthen mound or slope, a statically calculated supporting wall must be erected to absorb the soil pressure. The wall must exceed the dimensions of the tank by at least 500 mm in all directions and must be located at least 1000 mm away from the tank.

Groundwater and cohesive (water-impermeable) soils:

- If it is anticipated that the tanks will be immersed into the groundwater, a ring-shaped drainage system must be installed to ensure the tank is not more than 350mm emerged in water (in the case of cohesive, water-impermeable soils).
- Minimum distance to installation close to moving vehicles heavier than passenger cars is the depth of the trench.

Installation

- The tanks must be inserted, impact-free, into the prepared trench using suitable equipment. The tank is filled with 1/3 water before starting the backfill.
- The backfill is specified as gravel, max. grain size 8 to16mm.
- The backfill must be done in 300mm layers between compaction. The compaction should be done by hand.
- The space between tank and sides is minimum 500mm.

Please note: The purpose of this overview is to make all regulators and customers aware of the critical points in the Installation Instructions.

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