CERTIFICATE

Product certificate
K63956/04

Issued *2017-06-15*

Replaces *K63956/03*

Glass reinforced plastic (GRP) tanks, with or without spill containers, for the above ground storage of chemicals

STATEMENT BY KIWA

With this product certificate, issued in accordance with the Kiwa Regulations for Product Certification, Kiwa declares that legitimate confidence exists that the products supplied by

Christen & Laudon GmbH

as specified in this product certificate and marked with the Kiwa®-mark in the manner as indicated in this product certificate may, on delivery, be relied upon to comply with Kiwa evaluation guideline BRL-K21011/02 “Glass reinforced plastic (GRP) tanks, with or without spill containers, for the above ground storage of chemicals” dated 2014-01-01 inclusive amendment sheets dated 2014-07-15 and 2015-03-15.

Luc Leroy
Kiwa

Publication of this certificate is allowed.
Advice: consult www.kiwa.nl in order to ensure that this certificate is still valid.

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Certification process consists of initial and regular assessment of:
- **quality system**
- **product**

Glass reinforced plastic (GRP) tanks, with or without spill containers, for the above ground storage of chemicals

TECHNICAL SPECIFICATION

The tanks are designed for:

- Storage of chemicals above ground installation;
- Atmospheric pressure i.e. with a design pressure ≤ 50 kPa;
- Inside or outside installation;
- With or without a thermoplastic liner;
- Maximum filling capacity = 95% of the nominal capacity.
- Fabricated in factory
- Construction can be either: Single or double walled, vertical cylindrical construction with a conical, flat or dished end roof or bottom, or
  Single or double walled, horizontal cylindrical construction with dished ends;
- Without leak detection or pre-leakage detection;
- Subjected to a normal continuous operating temperature of fluid which can range between – 40 ºC and + 120 ºC;

The tanks are not suitable for:

- Combined installation such as a battery arrangement;
- Storage under pressure in excess of 50 kPa;
- Underground installation;
- Site built
- Spherical tanks and tanks of irregular shape;
- Transport and distribution of fluids.

The spill containers are designed for the above ground secondary containment of the chemicals contained in the storage tanks. The spill containers have a volume of 110% of the maximum volume of the tank.

The tanks and spill containers are made from glass reinforced plastic (GRP). For the resistance to the stored chemicals the storage tanks are provided with a Single protective Layer (SPL) or a Chemical Resistant Layer (CRL) or a Thermoplastic Lining (TPL). The permitted TPL plastic materials are PVC-U, PP-H, PP-B, PP-R, PVDF, E-CTFE, FEP of PFA.

APPLICATION AND USE

The product certificate is only applicable if the requirements mentioned in paragraph 6.5 and 6.6 of the Evaluation Guideline are fulfilled. These are:

Installation and user instructions

The manufacturer shall provide proper written installation and users' instructions in the language of the country where the tank is to be installed and used. These instructions shall reference compliance with the national environmental regulations pertaining to the storage of chemicals. National regulations can stipulate requirements for preventing accidental impact to the tank and spill container and requirements for the overfill prevention and anti siphon devices. National regulations stipulate that the installation be carried out by certified installers. The following Evaluation Guidelines provide additional information pertaining to the installation of the tank and spill container:

- BRL-K903 for the installation of tanks and appendages
- BRL-K910 for leak detection systems for the storage and/or transport of products in the liquid phase or gas phase

In all cases the appendages used shall be resistant to the chemical stored and this shall be suitably demonstrated by the tank installer.

Documentation to be supplied with the tank and spill container

Every GRP-tank / spill container shall be supplied with at least the following documents:

- The documentation as required by NEN-EN 13121-3.
- Installation / user instructions in the language of the country where the tank is to be installed and used in. The certification body shall approve these instructions.
- A unique tank / spill container compliance document with the approval of the certification body in relation to the product certificate.

MARKING

The products are marked with the Kiwa mark

Place of the mark:
Each GRP tank and spill container shall be indelibly marked.

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Compulsory indications:

- certification mark and certification number of the certification body;
- manufacturer's name and/or manufacturer's trade mark;
- serial number of the tank and/or spill container;
- month and year of manufacture;
- maximum volume of the tank or spill container in litres or m^3;
- name of the chemical to be stored in tank including the CAS number (Chemical Abstract Service number) along with the concentration;
- location of the tank: Inside or outside;
- factory/site tested:
  - pneumatic pressure of 30 kPa for 15 minutes, or;
  - hydrostatic pressure with water filling (at design pressure, if applicable) for 24 hours, or
  - hydrostatic pressure with water filling for 12 hours and hydrostatic pressure with chemical filling at site for a period of 24 hours;
- maximum design temperature of the chemical to be stored;
- maximum design pressure of the tank;
- recertification period if chemical resistance is less than 20 years;

The realization of the marks is as follows:

- indelible;
- clearly visible on the outside of the tank or spill container

RECOMMENDATIONS FOR CUSTOMERS

Check at the time of delivery whether:

- the supplier has delivered in accordance with the agreement;
- the mark and the marking method are correct;
- the products show no visible defects as a result of transport etc.

If you should reject a product on the basis of the above, please contact:

- Supplier

and, if necessary,

- Kiwa Nederland B.V.

Consult the supplier's processing guidelines for the proper storage and transport methods.