



# DET NORSKE VERITAS

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## TYPE APPROVAL CERTIFICATE

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**CERTIFICATE NO. K-3800**  
This Certificate consists of 3 pages

*This is to certify that the*  
**Plastic Pipes, Thermoplastic**

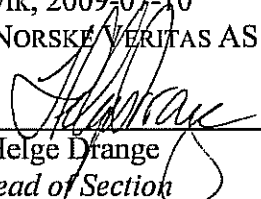
*with type designation(s)*  
**Geberit HDPE fittings**

*Holder of Certificate*  
**Geberit International AG**  
Jona, Switzerland

*is found to comply with*  
Det Norske Veritas' Rules for Classification of Ships  
Det Norske Veritas' Type Approval Program for Thermoplastic Piping, preliminary

*Application*  
Non-essential sanitary and drainage systems up to 1 bar and 20°C. The piping system is non-conductive, not for installation in gas hazardous area. The Fire Endurance and Flame Spread characteristic of the piping system has not been determined.

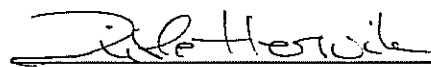
*Place and date*  
Høvik, 2009-07-10  
for DET NORSKE VERITAS AS

  
Helge Drange  
*Head of Section*



*Local Office*  
DNV Essen

*This Certificate is valid until*  
2013-06-30

  
Gisle Hersvik  
*Surveyor*

**Notice: This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.**

If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 2 million. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.



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File No.: 332.31

## Product description

High Density Polyethylene (HDPE) fittings to join;

- Geberit HDPE pipes,

Ref. separate Type Approval Certificate issued to *Geberit International AG (at Geberit Produzione Spa, Villadose, Italy)*.

List of approved fittings:

- Access pipe with oval access cover
- Adapter in PE with female thread
- Adapter in PE with male thread
- Bend 90° with long radius
- Bend 135°
- Branch fitting 91.5°
- Concentric reducer
- Electroweld sleeve coupling
- Flange adapter

## Manufactured by

Geberit Produktions AG, Schachenstrasse 77, CH-8645 Jona, Switzerland

Local DNV station: Essen

## Responsibility

The Holder of Certificate takes the responsibility that both design and production are in compliance with Rules, Standards and/or Regulations listed on page 1 of this certificate.

## Application/Limitation

Non-essential sanitary and drainage systems up to 1 bar and 20°C.

The piping system is non-conductive, not for installation in gas hazardous area.

The Fire Endurance and Flame Spread characteristic of the piping system has not been determined.

## Type Approval documentation

1. Previous Type Approval Certificate no. K-2675.
2. Survey Report from DNV Essen of 2009-05-18, Geberit test report of 2009-05-11 and SKZ Report of 2008-01-16.



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3. Geberit Piping System Catalogue, 2009.

#### **Tests carried out**

Type Testing carried out according to **Type Approval documentation**.

#### **Marking of product**

Fittings will be marked with: "Geberit PE".

#### **Certificate Retention/Renewal Survey**

The scope of the Retention/Renewal Survey is to verify that the conditions stipulated for the Type Approval is complied with and that no alterations are made to the product design or choice of materials.

Survey to be performed after two (2) years (Certificate Retention Survey) and at renewal after four (4) years (Certificate Renewal Survey).

The main elements of the survey are:

- Ensure that **Type Approval documentation** is available.
- Review design, materials, production process, and performance with respect to possible changes, in order to ensure compliance with **Type Approval documentation** and/or referenced material specifications.
- Ensure traceability between manufacturer's product marking and the DNV Type Approval Certificate.

END OF CERTIFICATE