

Deutsche Akkreditierungsstelle GmbH

Annex to the Accreditation Certificate D-PL-18196-01-00 according to DIN EN ISO/IEC 17025:2018

 Valid from:
 22.11.2021

 Date of issue:
 22.11.2021

Holder of certificate:

IKT - Institut für Unterirdische Infrastruktur gGmbH Exterbruch 1, 45886 Gelsenkirchen

for the locations

Exterbruch 1, 45886 Gelsenkirchen Kantoorgebouw "De Enk", Tivolilaan 205, 6824 BV Arnheim, Niederlande

Tests in the fields:

selected mechanical-technological and thermoanalytical tests at plastics, polymeric components of pipeline- and liner systems as well as GFK-laminate excerpts

The testing laboratory is permitted, without being required to inform and obtain prior approval from DAkkS, to use standards or equivalent testing methods listed here with different issue dates. The testing laboratory maintains a current list of all testing methods within the flexible scope of accreditation.

The management system requirements in DIN EN ISO/IEC 17025 are written in language relevant to operations of testing laboratories and operate generally in accordance with the principles of DIN EN ISO 9001.

The certificate together with its annex reflects the status at the time of the date of issue. The current status of the scope of accreditation can be found in the database of accredited bodies of Deutsche Akkreditierungsstelle GmbH. https://www.dakks.de/en/content/accredited-bodies-dakks



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The testing methods are marked with the following specified symbols of the locations, at which they are accomplished:

| | GE = Gelsenkir | chen NL = Niederlande (Arnheim) | |
|--------------------------|----------------|--|----------|
| DIN EN ISO 17 2019-08 | 8 | Plastics - Determination of flexural properties | GE NL |
| ISO 178 2019-04 | | Plastics - Determination of flexural properties | E NL |
| DIN EN ISO 52 2019-12 | 7-1 | Plastics - Determination of tensile properties - Part 1: General principles (here: <i>Section 9</i>) | GE |
| DIN EN ISO 52 2012-06 | 7-2 | Plastics - Determination of tensile properties - Part 2: Test conditions for moulding and extrusion plastics | GE |
| DIN EN ISO 52 2019-02 | 7-3 | Plastics - Determination of tensile properties - Part 3: Test conditions for films and sheets | GE |
| DIN EN ISO 52 1997-07 | 7-4 | Plastics - Determination of tensile properties - Part 4: Test conditions for isotropic and anisotropic fibre-reinforced plastic composites | GE |
| DIN EN ISO 52 2010-01 | 7-5 | Plastics - Determination of tensile properties - Part 5: Test conditions for unidirectional fibre-reinforced plastic composites | GE |
| DIN EN ISO 89 2015-06 | 9-2 | Plastics - Determination of creep behaviour - Part 2: Flexural creep by three-point loading | GE NL |
| ISO 899-2 2003-06 | | Plastics - Determination of creep behaviour – Part 2: Flexural creep by three-point loading | E NL |
| DIN EN 1228 1996-08 | | Plastics piping systems - Glass-reinforced thermosetting plastics (GRP) pipes - Determination of initial specific ring | GE NL |
| ISO 7685 2019-07 | | Glass-reinforced thermosetting plastics (GRP) pipes - Determina- tion of initial ring stiffness | GE NL |



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| DIN EN 13566-4 2003-04 | Plastics piping systems for renovation of underground non-pressure drainage and sewerage networks - Part 4: Lining with cured-in-place pipes (here: Annex C, D) (withdrawn standard) | GE NL |
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| DIN 16869-2 1995-12 | Centrifugally cast filled glass fibre reinforced unsaturated polyester resin (UP-GF) pipes - Part 2: General quality requirements, testing (here: <i>Chapter 6.10, 6.10.1, 6.10.2</i>) <i>(withdrawn standard)</i> | GE NL |
| APS-Guideline 15.09.2004 | Waterlightness of lining with cured-in-place pipes | GE NL |
| DWA-A 143-3 2014-05 | Rehabilitation of Drainage Systems outside Buildings - Part 3: Lining with cured-in-place pipes (CIPP) (here: <i>Test 7.2.9 Leak test of the material sample of the hose liner</i>) | GE NL |
| ZTV Materialprüfung Schlauchliner 29.06.2009 | Additional conditions of contracts (ZTV) for material testing of samples of lining with cured-in-place pipes by working group of municipalitys of southern Germany (here: <i>Chapter 3.1 to 3.3 and 3.8 (GE, NL) and Chapter 3.5 (GE)</i>) | GL NL |
| DIN EN ISO 11296-4 2018-09 | Plastics piping systems for renovation of underground non-pressure drainage and sewerage networks - Part 4: Lining with cured-in-place pipes (here: <i>Annex B, C, D</i>) | GE NL |
| ISO 11296-4 2018-02 | Plastics piping systems for renovation of underground non- pressure drainage and sewerage networks - Part 4: Lining with cured-in-place pipes | GE NL |
| DIN EN ISO 1183-1 2019-09 | Plastics - Methods for determining the density of non-cellular plastics - Part 1: Immersion method, liquid pycnometer method and titration method | GE |
| DIN 53765 1994-03 | Testing of plastics and elastomeres; thermal analysis - DSC-method (withdrawn standard) | GE |

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| DIN EN ISO 11357-1 2017-02 | Plastics - Differential scanning calorimetry (DSC) - Part 1: General principles (here: <i>Section 9</i>) | GE |
|-------------------------------|--|----|
| DIN EN ISO 11357-2 2014-07 | Plastics - Differential scanning calorimetry (DSC) - Part 2: Determi- nation of glass transition temperature and glass transition step height | GE |
| ISO 11357-2 2013-05 | Plastics - Differential scanning calorimetry (DSC) - Part 2: Determi- nation of glass transition temperature and glass transition step height | GE |
| DIN EN 17150 2019-11 | Plastics piping systems for non-pressure underground conveyance and storage of non-potable water - Test method for determination of short-term compression strength of boxes | GE |
| DIN EN 17151 2019-11 | Plastics piping systems for non-pressure underground conveyance and storage of non-potable water - Test method for determination of long-term compression strength of boxes | GE |

Abbreviations used:

| DIN | German Institute for Standardization |
|-----|--|
| EN | European Standard |
| IEC | International Electrotechnical Commission |
| ISO | International Organization for Standardization |
| APS | Working Group of Institute for Lining |
| DWA | German Association for Water, Wastewater and Waste r. a. |
| ZTV | Additional conditions of contracts |