

Deutsche Akkreditierungsstelle GmbH

Annex to the Accreditation Certificate D-PL-11048-01-02 according to DIN EN ISO/IEC 17025:2018

Valid from: **03.11.2020**

Date of issue: 03.11.2020

Holder of certificate:

**Staatliche Materialprüfungsanstalt Darmstadt, Institut für Werkstoffkunde
Technische Universität Darmstadt
Grafenstraße 2, 64283 Darmstadt**

for the

Plastics and composites area of competence

Tests in the fields:

Mechanical, thermal, electrical and technological testing of moulding compounds, semi-finished products, finished parts made of thermosetting and thermoplastic plastics as well as elastomers

Testing of construction products under Regulation (EU) No 305/2011 laying down harmonised conditions for the marketing of construction products (Construction Products Regulation)

For the test areas marked with *, the laboratory is permitted to freely select standard test methods or equivalent methods without obtaining prior notification and consent from DAkkS GmbH. For the test areas marked with ** the laboratory is permitted to modify and develop new test procedures without obtaining prior notification and consent from DAkkS GmbH. The testing laboratory has an up-to-date list of all test methods within the flexible scope of accreditation.

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

The certificate together with the annex reflects the status as indicated by the date of issue. The current status of any given scope of accreditation can be found in the directory of accredited bodies maintained by Deutsche Akkreditierungsstelle GmbH at <https://www.dakks.de/en/content/accredited-bodies-dakks>.

Abbreviations used: see last page

Page 1 of 6

This document is a translation. The definitive version is the original German annex to the accreditation certificate.

1. Test area I *

Measurand / test parameter / analyte	Matrix/sample/ test item/test object	Type of test	Characteristic test method
Force	Plastics and semi-finished products made of plastics	Tensile testing	DIN EN ISO 527 ISO 37 DIN 53504 DIN EN ISO 6259
		Pressure testing	DIN EN ISO 604 DIN ISO 3384-1
		Bend testing	DIN EN ISO 178 DIN 16841 DIN EN ISO 75
Length / length difference	Semi-finished products made of plastics	Determination of geometric characteristics Stiffness Flexibility Deformation	DIN EN 1848-2 DIN EN 12691 DIN EN ISO 13968 DIN EN ISO 9967 DIN EN ISO 9969 DIN EN ISO 2505 ISO 18553 DIN ISO 815
Mass	Plastics	Mass determination	DIN EN ISO 62
Density	Non-cellular plastics	Immersion method testing	DIN EN ISO 1183-1 (method A)
Pressure	Semi-finished products made of plastics	Pressure testing	DIN EN 1928
Temperature	Plastics and semi-finished products made of plastics	Thermal and thermal-analytical methods	ISO 188 DIN EN ISO 306 DIN EN 495-5
Temperature / time			DIN EN ISO 11357
Temperature / mass			DIN EN ISO 11358-1 DIN EN ISO 1133-1
Temperature / medium			DIN ISO 1817 DIN EN 1548
Temperature / UV radiation / medium			DIN EN ISO 4892-3
Pressure / temperature	Piping components and systems made of plastics and metals	Long-term hydrostatic pressure resistance	DIN EN ISO 13254 DIN EN ISO 13255 DIN EN ISO 13259 DIN EN ISO 1167 DIN 16887
		Testing by temperature cycling	DIN EN ISO 13257
Hardness	Plastics	Hardness testing	ISO 48 DIN ISO 7619-1

Annex to the accreditation certificate D-PL-11048-01-02

Measurand / test parameter / analyte	Matrix/sample/ test item/test object	Type of test	Characteristic test method
Energy	Plastics	Impact testing	DIN EN ISO 179-1 DIN 53435
Direct current resistance	Solid insulating materials and semi-finished products made of plastics	Dielectric and resistive properties	DIN EN 62631-1 DIN EN 62631-3-1 VDE 0307-3-1 DIN EN 62631-3-2 VDE 0307-3-2 DIN EN 62631-3-3 VDE 0307-3-3
Capacity and dissipation factor			DIN EN 62631-1 DIN EN 62631-2-1
Proof and the comparative tracking indices		Tracking	DIN EN 60112
Oxygen content	Piping systems	Oxygen permeability	ISO 17455
Technical delivery conditions	Pipes and fittings made of plastics and metals	Testing of product properties of pipes and fittings	DIN 16961 DIN EN 14982 DIN EN 1555 DIN EN 12201 DIN 8076 DIN EN ISO 15875 DIN 16968 DIN 8078 DIN EN ISO 1452 DIN EN ISO 20391 DIN EN ISO 21003 DIN EN 10242 Qplus R 59201 DVGW GW 335 DVGW W 534 DVGW G 5600-1 (P)
	Elastic seals	Testing of product characteristics of seals	DIN EN 549 DIN EN 681-1 (without testing as per ISO 1431-1 (ozone testing)) DIN EN 682 DVGW W 384 (P)
	Flexible sheets for waterproofing	Testing of product characteristics of flexible sheets for waterproofing	DIN EN 13956 DIN EN 13967

Annex to the accreditation certificate D-PL-11048-01-02

Measurand / test parameter / analyte	Matrix/sample/ test item/test object	Type of test	Characteristic test method
Technical delivery conditions	Reinforced thermosetting powder moulding compounds	Testing of product characteristics	DIN EN ISO 14526-1, -2, -3 DIN EN ISO 14527-1, -2, -3 DIN EN ISO 14528-1, -2, -3 DIN EN ISO 14529-1, -2, -3 DIN EN ISO 14530-1, -2, -3 DIN EN ISO 14598-1, -2, -3 DIN EN ISO 15252-1, -2, -3 Restrictions With restriction to the characteristics specified in Part 3 in each case with regard to the requirements for typified thermosetting moulding compounds and test methods assigned to them.
	Cosmetic consumer goods	Testing of product characteristics of toothbrushes and interdental brushes	DIN EN ISO 20126 DIN EN ISO 20127 DIN EN ISO 16409

2. Product characteristics of building products test area *

DIN EN 682 2006-10	Elastomeric seals – Material requirements for seals used in pipes and fittings carrying gas and hydrocarbon fluids (without testing as per ISO 1431-1 (ozone testing))
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3. Test area II **

Measurand / test parameter / analyte	Matrix/sample/ test item/test object	Type of test	Characteristic test method
Volume / pressure	Verification of condom testing systems	Verification of condom testing machines	AA-A-29

Valid from: 03.11.2020
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Page 4 of 6

- Translation -

4. Testing of construction products under Regulation (EU) No 305/2011 laying down harmonised conditions for the marketing of construction products (Construction Products Regulation)

Decision of the Commission	System ¹⁾	Technical specification
1999/472/EG Pipes, containers and accessories that do not come into contact with drinking water	3	EN 682:2002 Elastomeric seals – Materials requirements for seals used in pipes and fittings carrying gas and hydrocarbon fluids
2002/359/EG Piping kits and storage systems, pipes, tanks, valves, taps, pumps, water meters, protection and safety devices, fittings, adhesives, joints, joint sealings, gaskets, membranes, resins, coatings including linings, lubricants and greases in contact with water intended for human consumption	3	EN 682:2002/A1:2005 Elastomeric seals – Material requirements for seals used in pipes and fittings carrying gas and hydrocarbon fluids

¹⁾ System for assessment and verification of constancy of performance

The requirements for a testing laboratory are fulfilled according to article 43 of the Construction Products Regulation. Testing methods, which are necessary for determining the product type and cannot be executed by the holder of the certificate, are described in the list of subcontractors.

Without prior approval by the DAkKS German Accreditation Body, the testing laboratory body is permitted to use new revisions of the harmonised technical specifications.

Abbreviations used

VA	Standard Operating Procedure of the State Materials Testing Institute Darmstadt, Institute of Materials Science
AA	Standard Operating Procedure of the State Materials Testing Institute Darmstadt, Institute of Materials Science
DIN	Deutsches Institut für Normung (German Institute for Standardization)
EN	European standard
ISO	International Organization for Standardization
ASTM	American Society for Testing and Materials
BAM	Bundesanstalt für Materialforschung und -prüfung (Federal Institute for Materials
Qplus	Qplus Swiss Quality