

Deutsche Akkreditierungsstelle GmbH

Annex to the Accreditation Certificate D-EP-11274-01-00 according to DIN EN ISO/IEC 17043:2010

Valid from: 21.11.2018

Date of issue: 12.02.2019

Holder of certificate:

**Kunststoff-Institut für die mittelständische Wirtschaft NRW GmbH
(KIMW NRW GmbH)
Karolinenstraße 8, 58507 Lüdenscheid**

Proficiency testing in the fields:

**mechanical/physical testing, chemical-physical analysis, chemical and sensory analysis of
thermoplastic moulding materials and elastomers**

Testing area	PT-Item	Measurand/Parameter	Name of the PT programme
Mechanical/ physical testing	Thermoplastic moulding materials	Density (Buoyancy method)	Determination of density according to DIN EN ISO 1183-1:2013-04 Density according to ISO 1183-1:2012-05
	Thermoplastic moulding materials	Tensile Modulus E Stress and strain values	Tensile Properties according to DIN EN ISO 527-2:2012-06 Tensile Properties according to ISO 527-2:2012-02

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

Abbreviations used: see last page

*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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Testing area	PT-Item	Measurand/Parameter	Name of the PT programme
Mechanical/ physical testing	Thermoplastic moulding materials	Flexural Modulus E Flexural stress and strain properties	Flexural properties according to DIN EN ISO 178:2013-09 Flexural properties according to ISO 178:2010-12
	Thermoplastic moulding materials	Penetration hardness - Shore D	Shore D Hardness according to DIN EN ISO 868:2003-10 Shore D Hardness according to ISO 868:2003-03
	Thermoplastic moulding materials	Charpy - impact properties Charpy - Notch impact test	Determination of Charpy impact properties according to DIN EN ISO 179-1:2010-11 Determination of Charpy impact properties according to ISO 179-1:2010-06
	Thermoplastic moulding materials	Vicat softening temperature	Vicat softening temperature according to DIN EN ISO 306:2014-03 Vicat softening temperature according to ISO 306:2013-11
	Thermoplastic moulding materials	Heat deflection temperature (HDT)	Heat deflection temperature according to ISO 75-1:2013-04
	Thermoplastic moulding materials	Melting point Melting enthalpy	DSC Analysis; Melting temperature/-enthalpy according to DIN EN ISO 11357-3:2018-07 DSC Analysis; Melting temperature/-enthalpy according to ISO 11357-3:2018-03

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Testing area	PT-Item	Measurand/Parameter	Name of the PT programme
Mechanical/ physical testing	Thermoplastic moulding materials Elastomers	Glass transition temperature	DSC Analysis; Glass transition temperature according to DIN EN ISO 11357-2:2014-07 DSC Analysis; Glass transition temperature according to ISO 11357-2:2013-05
	Thermoplastic moulding materials	Melt mass flow rate / Melt volume-flow rate (MFR/MVR)	Melt mass-flow rate (MFR) / Melt volume-flow rate (MVR) according to DIN EN ISO 1133-1:2012-03 Melt mass-flow rate (MFR) / Melt volume-flow rate (MVR) according to ISO 1133-1:2011-12
	Thermoplastic moulding materials	residue on ignition (Content of components non reducible to ashes)	Residue on ignition according to DIN EN ISO 1172:1998-12 Determination of the textile- glass and mineral filler content according to ISO 1172:1996-12
	Thermoplastic moulding materials	Colour measurement (8°/d)	Colour measurement (8°/d) according to DIN 53236:2018-02 / ISO 7724:1984 (<i>withdrawn document</i>)
	Thermoplastic moulding materials	Colour measurement (45°)	Colour measurement (45°/0) according to DIN 53236:2018-02

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Testing area	PT-Item	Measurand/Parameter	Name of the PT programme
Mechanical/ physical testing	Thermoplastic moulding materials	Gloss level	Gloss level; gloss value according to DIN EN ISO 2813:2015-02 Gloss value according to ISO 2813:2014-10
	Thermoplastic moulding materials	Scratch resistance	Scratch resistance test according to PV 3952:2015-11
	Thermoplastic moulding materials	Scrub Resistance (Micro-Scratch Resistance)	Scrub Resistance (Micro- Scratch Resistance) of High- Gloss Surfaces according to PV 3987:2016-11
	Elastomers	Tensile testing of elastomer samples (S2)	Tensile Properties according to ISO 37:2017-11
	Elastomers	Shore A Hardness	Shore A Hardness according to DIN EN ISO 868:2003-10 Shore A Hardness according to ISO 868:2003-03
Chemical-physical analysis	Thermoplastic moulding materials	Filler content	Thermogravimetric analysis (TGA) according to DIN EN ISO 11358-1: 2014-10: Filler content Thermogravimetric analysis (TGA) according to ISO 11358-1:2014-07: Filler content
	Thermoplastic moulding materials	Content of additives, plasticizers, extenders, blending components or copolymers	Quantitative FTIR spectros- copy

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Chemical-physical analysis	Thermoplastic moulding materials	Water content method E - Determination of water content using Calciumhydrid	Determination of water content according to DIN EN ISO 15512:2017-03 Method E (Calcium Hydride method) Determination of water content according to ISO 15512:2016-10 Method E (Calcium Hydride method)
	Elastomers	Thermogravimetry (TGA)	Thermogravimetric analysis (TGA) according to DIN EN ISO 11358-1: 2014-10: Soot content Thermogravimetric analysis (TGA) according to ISO 11358-1:2014-07: Soot content
Chemical analysis	Thermoplastic moulding materials Elastomers Textiles	Burning rate	Burning behavior according to DIN 75200:1980-09 / FMVSS 302:2017-10
	Thermoplastic moulding materials Elastomers	Content of low-volatile ingredients	Fogging according to DIN 75201:2011-11 Method B
Sensory analysis	Thermoplastic moulding materials Elastomers	Odour characteristics	Odour test according to VDA 270:2016-11 / PV 3900:2000-08

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