

Proficiency Test 2012

By participating in the proficiency test, laboratories are testing themselves; they verify their own test procedures as well as their comparability.

Proficiency testing is offered once a year. A large number of different laboratories are taking part each year. In 2011 registered

- **180 Participants**
- **from 28 countries**
- **for 765 single test methods.**

After the registration deadline, the corresponding samples will be sent out to the participants. Once all of the results have been submitted, the final evaluation reports, which are made anonymous, will be sent out to the participants. Only the corresponding laboratories will receive their own results so they can react appropriately. This is of particular importance to accredited and/or certified laboratories, which are subject to increased quality demands. "The proficiency test is an important and well functioning corrective."

Registration and Information

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You can find further information concerning the proficiency test 2012 and the time management on our homepage:

www.ringversuche.info
www.proficiency-test.info

The participation in the proficiency test will enable you to see if the mechanical testing or analyses results are comparable to those achieved in other laboratories and it is possible to get information concerning the measurement uncertainty. They are, therefore, an important instrument of external quality control for laboratories and are used to determine and/or verify the accuracy of measuring methods, in which they document the performance of your own laboratory.

Participation in the proficiency tests is recommended, in particular, for test centres and laboratories certified per an ISO 9000 QA system or accredited per EN ISO/IEC 17025.

The proficiency test is performed and evaluated according to ISO Guide 17043. For the measurement of the laboratory performance the so-called "z-score" is used.

The performance of the single results requires a minimum of five participants. Participation in individual test procedures is possible. Samples and materials will be supplied by the Kunststoff-Institut Lüdenschied. For each test method two materials or samples are provided.

Schedule for the Proficiency Test 2012

Registration Deadline:	Mid of February 2012
Test sample distribution:	End of March 2012
Deadline for reporting the test results:	Mid of June 2012
Distribution of the test reports:	Mid of September 2012

In the proficiency test 2012 test methods from the following categories were offered:

Tests on plastics:

- Mechanical properties
- Thermal properties
- Physical properties
- Chemical properties
- Emission properties
- Optical properties
- Rheological properties
- Electrical properties
- Burning behaviour
- Specimen injection moulding

Tests on rubber und TPE:

- Mechanical properties
- Hardness and abrasion

Tests on plastic films:

- Mechanical properties
- Coefficients of friction
- Permeability

Tests on plastic pipes:

- Resistance to internal pressure

Exposure to light/Ageing:

- Light fastness
- Sunlight simulation

Tests acc. to ASTM standards: **NEW!!!**

- Mechanical properties
- Thermal properties

Kunststoff-Institut

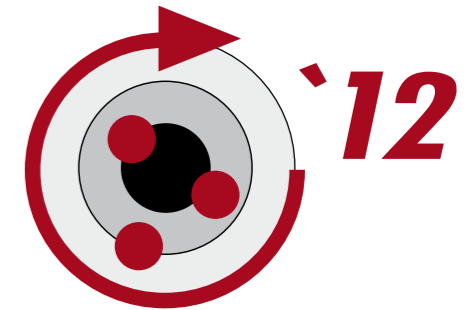
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Proficiency Tests

DIN | ISO | VDA | ASTM

11th Proficiency test 2012

Proficiency Test Laboratory

Plastics testing and analysis

The following test methods are offered in 2012:

Tests on plastics:

➤ Density	ISO 1183-1
➤ Melt flow/volume index MFR/MVR	ISO 1133
➤ Ash content	ISO 1172
➤ Melting point and the enthalpy with DSC-Analysis	ISO 11357-3
➤ Glass transition temperature with DSC-Analysis	ISO 11357-2
➤ Oxidation Induction Time (OIT) with DSC-Analysis	ISO 11357-6
➤ Talcum and black carbon content with Thermogravimetric Analysis (TGA)	ISO 11358
➤ Coefficient of linear thermal expansion	ISO 11359
➤ Shore-D-Hardness	ISO 868
➤ Ball indentation hardness	ISO 2039-1
➤ Tensile test (modulus)	ISO 527-1/-2
➤ Tensile test (strength/elongation)	ISO 527-1/-2
➤ Tensile test at higher temperature (1 material)	ISO 527-1/-2
➤ Tensile test at lower temperature (1 material)	ISO 527-1/-2
➤ Instrumented impact test	ISO 6603-2
➤ Compression Test (compressive strength)	ISO 604
➤ Charpy impact strength +23°C	ISO 179-1/1eU
➤ Charpy notched impact strength +23°C	ISO 179-1/1eA
➤ Charpy impact strength -30°C (notched and unnotched)	ISO 179-1
➤ Izod impact strength +23 °C (notched and unnotched)	ISO 180
➤ Flexural test (modulus)	ISO 178
➤ 3,5% flexural stress	ISO 178
➤ Flexural test (strength and elongation)	ISO 178
➤ Vicat softening point	ISO 306
➤ Heat deflection temperature	ISO 75
➤ Viscosity number (concentrated sulphuric acid)	ISO 307
➤ Viscosity number (m-kresol)	ISO 307

➤ Viscosity number on PBT (phenol/1,2-dichlorbenzol)	ISO 1628-5
➤ Fluidity of plastics (capillary rheometer)	ISO 11443
➤ Complex shear viscosity (parallel-plate rheometer)	ISO 6721-10
➤ Dynamic-mechanical-Analysis (DMA) Modulus of elasticity in tension	ISO 6721-2
➤ Dynamic-mechanical-Analysis (DMA) e.g. Shear loss modulus	ISO 6721-5
➤ Burning rate (DIN 75200)	FMVSS 302
➤ Burning rate	UL 94 HB
➤ Burning rate	UL 94 V
➤ Odourtest (VW PV 3900)	VDA 270
➤ Formaldehyde emission (VW PV 3925)	VDA 275
➤ Total carbon emission (VW PV 3341)	VDA 277
➤ Fogging/Method A (reflectometric fogging)	DIN 75201
➤ Fogging/Method B (gravimetric fogging) (VW PV 3015)	DIN 75201
➤ Dynstat flexural impact test	DIN 53435
➤ 3.5% flexural stress/Dynstat	DIN 53435
➤ Specular gloss at 60 degrees (DIN 67530)	ISO 2813
➤ Determination of the colour [8°/0] ΔL Δa Δb ΔE values (DIN 53236-A)	ISO 7724
➤ Determination of the colour [45°/0] ΔL Δa Δb ΔE values	DIN 53236-B
➤ Fire hazard testing/Glowing/hot-wire based test method acc. to	DIN EN 60695

Specimen injection moulding 1A and mechanical properties:

➤ Specimen injection moulding (1A) and tensile test	ISO 527-1/-2
➤ Specimen injection moulding (1A) and flexural test	ISO 178
➤ Specimen injection moulding (1A) and Charpy flexural impact	ISO 179

Manufacturing of Specimen 1A (cutting) and mechanical properties:

➤ Manufacturing of specimen (1B) and tensile test	ISO 527-1/-2
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Properties of rubber and TPE:

➤ Density of rubber	ISO 2781
➤ Tensile test	ISO 37
➤ Tensile test at higher temperature	ISO 37
➤ Glass transition temperature of rubber	DIN 53765
➤ Compression set at ambient	ISO 815
➤ Tear strength/trouser test piece	ISO 34-1
➤ Tear strength/angle test piece	ISO 34-1
➤ Shore-A-Hardness	ISO 868
➤ IRHD-Hardness (method N)	ISO 48-N
➤ Solvent extract of rubber	ISO 1407
➤ Rebound resilience	ISO 4662
➤ Abrasion resistance on rubber	ISO 4649

Properties of plastic films:

➤ Tensile test on plastic films	ISO 527-3
➤ Tear strength of plastic films	DIN 53356
➤ Tear resistance – trouser tear method	ISO 6383-1
➤ Tear resistance - Elmendorf method	ISO 6383-2
➤ Water vapour transmission rate	ISO 15106-3
➤ Gas-transmission rate	ISO 15105-2
➤ T-Peel test	ISO 11339
➤ Stiffness in bending - Cantilever	DIN 53362
➤ Film thickness	ISO 4593
➤ Coefficients of friction (static friction and kinetic friction)	ISO 8295

Properties of plastic pipes:

➤ Resistance to internal pressure at 2 temperatures and different tensions (max. 1000 h)	ISO 1167-1/-2
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Infrared spectroscopy:

➤ Quantitative Infrared spectroscopy (e.g. Determination of the proportion of bands)

Exposure to sunlight and evaluation with greyscale and Colorimetry (different participation fee):

➤ Light fastness	ISO 105-B06 and VDA 75202
➤ Sun light simulation	DIN 75220 D-IN1-T

The evaluation is performed by the participants with greyscale and at the Kunststoff-Institut with Colorimetry.

Tests according to ASTM standards: NEW!!!

➤ Tensile test (modulus)	ASTM D638
➤ Tensile test (strength/elongation)	ASTM D638
➤ Flexural test (modulus)	ASTM D790
➤ Flexural test (strength/elongation)	ASTM D790
➤ Specific Gravity	ASTM D792
➤ Melt flow/volume index MFR/MVR	ASTM D1238
➤ Vicat softening point	ASTM D1525
➤ Heat deflection temperature	ASTM D648

Participation fee

Standard:

The costs for the participation in the proficiency test 2012 for each test method amount to:

260.00 € plus VAT

395.00 € plus VAT (for the exposure to sunlight)

Reduced:

Laboratories registering for at least 4 procedures will receive a rebate of 10%:

234.00 € plus VAT

Laboratories registering for at least 8 procedures will receive a rebate of 20%:

208.00 € plus VAT