

**The Appendix is an integral part of
Certificate of Accreditation No. 203/2022 of 29/04/2022**

Accredited entity according to ČSN EN ISO/IEC 17025:2018:

ORLEN Unipetrol RPA, s.r.o. - POLYMER INSTITUTE BRNO, odštěpný závod
Testing Laboratory for Mechanical, Physical and Chemical Properties of Plastics
Tkalcovská 36/2, Zábřovice, 602 00 Brno

Tests:

Ordinal number ¹	Test procedure/ method name	Test procedure/ method identification ²	Tested object
1	Determination of tensile properties	ČSN EN ISO 527-1 ČSN EN ISO 527-2 ČSN EN ISO 527-3 ČSN EN ISO 6259-1	Plastics
2	Determination of flexural properties	ČSN EN ISO 178	Plastics
3	Reserved		
4	Determination of impact strength by Charpy method	ČSN EN ISO 179-1 ČSN EN ISO 179-2	Plastics
5	Determination of impact strength by Izod method	ČSN EN ISO 180	Plastics
6	Determination of properties at multiaxial impact loading	ČSN EN ISO 6603-1 ČSN EN ISO 6603-2	Plastics
7	Determination of indentation hardness by means of a durometer (Shore hardness)	ČSN EN ISO 868	Plastics, rubber
8	Determination of hardness – ball indentation method	ČSN EN ISO 2039-1	Plastics
9	Determination of temperature of deflection under load	ČSN EN ISO 75-1 ČSN EN ISO 75-2	Plastics
10	Determination of Vicat softening temperature (VST)	ČSN EN ISO 306	Plastics
11	Reserved		
12	Determination of density of non-expanded plastics – immersion method	ČSN EN ISO 1183-1 method A	Plastics
13	Determination of resistance to slow propagation of crack (PENT)	ISO 16241	Plastics
14	Determination of environmental stress cracking by full-notch creep test (FNCT)	ISO 16770 ASTM D5397	Plastics
15	Determination of melting and crystallization temperature and enthalpy, glass transition temperature and including kinetics of crystallization by differential scanning calorimetry (DSC)	ČSN EN ISO 11357-1 ČSN EN ISO 11357-2 ČSN EN ISO 11357-3 ČSN EN ISO 11357-7	Plastics
16-17	Reserved		

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18	Determination of ash content (content of glass and mineral binder) in plastics by gravimetry	ČSN EN ISO 3451-1 ČSN EN ISO 3451-4 ČSN EN ISO 1172	Plastics
19	Determination of water content (moisture) - Karl Fischer method	ČSN EN ISO 15512 method B2 ČSN ISO 760	Plastics
20	Determination of emissions of organic compounds by gas chromatography (GC/FID, GC/MS)	PV 3341 VDA 277	Plastics, textiles, vehicle interior parts
21	Determination of hardness – Rockwell hardness	ČSN EN ISO 2039-2	Plastics
22	Determination of burning behaviour of vehicle interior materials	ČSN ISO 3795 DIN 75200	Plastics, vehicle interior parts
23	Reserved		
24	Determination of the melt mass-flow rate (MFR) and the melt volume-flow rate (MVR) of thermoplastics	ČSN EN ISO 1133-1 ČSN EN ISO 1133-2	Plastics
25	Determination of formaldehyde emissions in vehicle interior materials by spectrophotometry	PV 3925 VDA 275	Plastics, textiles, vehicle interior parts
26	Determination of the viscosity of polymers by capillary viscosimeter	ČSN EN ISO 1628-1 ISO 1628-4 ISO 1628-5 ČSN EN ISO 307	Plastics
27	Determination of overall migration into aqueous food simulants	ČSN EN 1186-1 ČSN EN 1186-3	Plastics
28	Determination of overall migration into olive oil	ČSN EN 1186-1 ČSN EN 1186-2 ČSN EN 1186-10	Plastics
29	Determination of total migration of plastics intended to come into contact with fatty foods using isooctane and 95% ethanol test media	ČSN EN 1186-1 ČSN EN 1186-14 ČSN EN 1186-15	Plastics
30-31	Reserved		
32	Determination of oxidation induction time (OIT) by differential scanning calorimetry	ČSN EN ISO 11357-1 ČSN EN ISO 11357-6	Plastics

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Ordinal number ¹	Test procedure/ method name	Test procedure/ method identification ²	Tested object
33	Determination of the content of glass fibres, soot and inorganic fillers in polymers	ČSN EN ISO 11358-1	Plastics
34	Reserved		
35	Determination of odour of vehicle interior parts	PV 3900 VDA 270	Plastics, textiles, vehicle interior parts
36-37	Reserved		
38	Determination of plastic part behaviour at elevated or reduced temperatures without load	DIN 53497, method B PP 38	Plastics
39	Detection of defects by microscopic evaluation of microtome sections	PP 39	Plastics
40	Fogging test	PV 3015 DIN 75201	Plastics, textiles, vehicle interior parts

¹ asterisk at the ordinal number identifies the tests, which the Laboratory is qualified to carry out outside the permanent laboratory premises

² if the document identifying the calibration procedure is dated, only these specific procedures are used. If the document identifying the calibration procedure is not dated, the latest edition of the specified procedure is used (including any changes)

Explanatory notes:

PENT	Pennsylvania Notch Test
FNCT	Full-notch Creep Test
DSC	Differential scanning calorimetry
DIN	German standard (Deutsches Institut für Normung e.V.)
VDA	German Association of the Automotive Industry (Verband der Automobilindustrie)
ASTM	American standard (American Society for Testing and Materials)
PV	Volkswagen standard
PP	Working procedure of UNIPETROL RPA, s.r.o. – POLYMER INSTITUTE BRNO, branch
GC	Gas Chromatography
FID	Flame-Ionization Detector
MS	Mass Spectrometry