



INSTITUT PRO TESTOVÁNÍ A CERTIFIKACI, a. s.
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TESTING LABORATORY

ATTEST

No. 462500483

for a sample of
sheets from polypropylene
type PP - B

(thickness: 2 mm to 15 mm)

of the client:

IMG Bohemia, s.r.o.

Průmyslová 798, Planá nad Lužnicí, 391 01 Sezimovo Ústí 2, CZ, IČ: 49824732

Sheet (4 x 3000 x 1500) mm in size-results of determination of selected technical characteristics according to ČSN EN ISO 15 013

Characteristics measured	Test standard used	Unit	Resulting value	Measurement uncertainty ¹⁾	Assessment according to ČSN EN ISO 15013
Appearance	ČSN EN ISO 15013 subclause 5.3	-	no bubbles, no pores, no visible defects		meets subclause 4.1
Dimensions	ČSN EN ISO 15013				
- thickness (W)	subclause 5.4.1		3,94	0,01	meets subclause 4.2.1
- length (L)	subclause 5.4.2	mm	3002	0,0	meets subclause 4.2.2
- width (b)	subclause 5.4.2		1502	0,0	meets subclause 4.2.2
- rectangularity	subclause 5.4.3		3	2	meets subclause 4.2.3
Tensile yield stress	ČSN EN ISO 527-1, 527-2	MPa	26,5	0,5	meets subclause 4.3.1
Tensile elasticity modulus (Young's modulus)	ČSN EN ISO 527-1, 527-2	MPa	1560	63	meets subclause 4.3.1
Charpy notched impact strength (at 23 °C)	ČSN EN ISO 179	kJ/m ²	62,1	0,9	meets subclause 4.3.1
MFR 190 °C/5 kg	ČSN EN ISO 1133	g/10 min	0,69	0,01	meets subclause 4.3.1
MFR 230 °C/2.15 kg	ČSN EN ISO 1133	g/10 min	0,36	0,01	meets subclause 4.3.1
Maximum shrinkage for general applications	ČSN EN ISO 15013 subclause 4.3.2.1	%	Lengthwise direction: 0,1 Crosswise direction: 0,3	0,1 0,1	meets subclause 4.3.2

¹⁾ The measurement uncertainty is expressed as an A (u_{VA}) type standard uncertainty

In the characteristics tested the product meets the requirements specified by the standard **ČSN EN ISO 15013**:
Extruded sheets of polypropylene (PP) - Requirements and test methods.

Date of issue: 17th January 2007
Date of Test Certificate expiration: 30th September 2008



Doc. Dipl. Ing. Vladimír Klepal, CSc.
Director of Testing Division

The results given in this Attest apply only to the sample tested by our laboratory.
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Supplementary technical characteristics of the product:

Characteristics measured	Test standard	Unit	Resulting value	Measurement uncertainty ¹⁾
Elongation at yield point	ČSN EN ISO 527-1, 527-2	%	7,2	0,2
Elongation at break	ČSN EN ISO 527-1, 527-2	%	226	74
Flexural strength	ČSN EN ISO 178	MPa	40,2	0,5
Deflection	ČSN EN ISO 178	mm	11,2	0,5
Flexural modulus of elasticity	ČSN EN ISO 178	MPa	1470	67
Charpy impact strength (at 23 °C)	ČSN EN ISO 179	kJ/m ²	128,9	0,2
Charpy impact strength (at -20 °C)	ČSN EN ISO 179	kJ/m ²	77,9	1,5
Charpy notched impact strength (at 23 °C)	ČSN EN ISO 179	kJ/m ²	6,1	0,3
Ball indentation hardness	ČSN EN ISO 2039-1	N/mm ²	66	1,6
Vicat softening temperature	ČSN EN ISO 306	°C	149	0,5
Welded joint flexural strength bending angle α	ČSN EN 12814-1	degree	> 102 > 104	- -
<ul style="list-style-type: none"> • extrusion welded joint EX • mirror welded joint HT 				
Welded joint tensile strength short-term welding factor	ČSN EN 12814-1	-	1,0 0,94	- -
<ul style="list-style-type: none"> • extrusion welded joint EX • mirror welded joint HT 				

¹⁾ The measurement uncertainty is expressed as an A (u_{xA}) type standard uncertainty

