



# INSTITUT PRO TESTOVÁNÍ A CERTIFIKACI, a.s.

třída T.Bati 299, 764 21 Zlín – Czech Republic  
TESTING LABORATORY

## ATTEST

No. 412204185/2

on sample:

**Polypropylene Baton PBS**

client:

**POLYGEMA s.r.o.**

**Jelení 463, 742 45 FULNEK, IČ: 25834479**

Values obtained of the technical parameters

| Characteristics measured          | Testing method | Unit | Resulting value <sup>1)</sup> | Measurement uncertainty <sup>2)</sup> |
|-----------------------------------|----------------|------|-------------------------------|---------------------------------------|
| Weight                            | P-09-23        | g    | 536                           | 1                                     |
| Color                             | -              | -    | black                         |                                       |
| Length                            | P-09-23        | mm   | 786                           | 1                                     |
| Length of the straight grip       |                | mm   | 134                           | 1                                     |
| Diameter of the percussive part   |                | mm   | 30,7                          | 0,1                                   |
| Flexural Strength of baton's body |                | MPa  | 41,0 <sup>3)</sup>            | 0,7                                   |

### Explanations:

- <sup>1)</sup> Arithmetic mean value
- <sup>2)</sup> Sample standard deviation of arithmetic mean value
- <sup>3)</sup> All test pieces without crash

Issue on: 12th November 2009

Valid till: 30th November 2011



Doc. Ing. Vladimír Klepal, CSc.  
Head of the testing laboratory

*The results given in this Attest apply only to the sample tested by our laboratory.  
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**Sample description and identification:**

The sample – **Polypropylene baton PBS**, was received for testing and registered under the number 412204185/02

**Figure 1: Polypropylene baton PBS, Registration number: 412204185/02**



**Work requested:**

1. Weight
2. Color
3. Length
4. Length of the straight grip
5. Diameter of the percussive part
6. Flexural Strength of the percussive part

**Testing method used:**

ad 1,3 – 6 Testing of plastic batons P-09-23

**Testing equipment used:**

- ad 1 Balance Sartorius 5500 g  
ad 3 Tapeline  
ad 4,5 Mitutoyo calliper (0 – 150)mm  
ad 6 INSTRON 3365 universal tensile machine, Mitutoyo calliper (0 – 150)mm

**Conditioning:**

Conditioning time: 24 hours, conditioning temperature: 23 °C, relative humidity: 50%

**Test conditions :**

- ad 1 Tested the finished product, number of test pieces:5  
ad 2 Tested the finished product  
ad 3 – 5 Tested the finished product, number of test pieces:5  
ad 6 Test pieces were prepared from cylindrical part of batons, length 400 mm, three-point arrangement; distance of supports: 300 mm, mandrel radius of 12,5 mm, radius of supports 10 mm, speed 10 mm/min, number of test pieces: 3.



**Test results :**

Test results are given in the following tables :

**Table 1: Polypropylene baton PBS, Registration number: 412204185/02**

| Characteristics measured          | Unit | Resulting value <sup>1)</sup> | Measurement uncertainty <sup>2)</sup> |
|-----------------------------------|------|-------------------------------|---------------------------------------|
| Weight                            | g    | 536                           | 1                                     |
| Color                             | -    | black                         |                                       |
| Length                            | mm   | 786                           | 1                                     |
| Length of the straight grip       | mm   | 134                           | 1                                     |
| Diameter of the percussive part   | mm   | 30,7                          | 0,1                                   |
| Flexural Strength of baton's body | MPa  | 41,0 <sup>3)</sup>            | 0,7                                   |

**Explanations:**

- 1) Arithmetic mean value
- 2) Sample standard deviation of arithmetic mean value
- 3) All test pieces without crash

**Tested by:**

|          |   |               |
|----------|---|---------------|
| ad 1,3-5 | Ing. Hrnčiarová Anna                                      | 9.-11.11.2009 |
| ad 2     | Đurčová Pavla, Špendlíková Miroslava, Pospíšilová Blažena | 9.11.2009     |
| ad 6     | Đurčová Pavla   | 11.11.2009    |

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