



## INSTITUTE FOR TESTING AND CERTIFICATION

třída Tomáše Bati 299, Louky, 763 02 Zlín, Czech Republic

## FINAL REPORT

Ref. No. 353301330/2016

Client: **Zemědělské družstvo Haňovice**  
Haňovice 18  
783 21 pošta Chudobín  
Czech Republic

Product: Filament  
Type: 1,75 PLA yellow-green colour

Assessed by: Dipl. Ing. Ludmila Antošová

A handwritten signature in blue ink, appearing to read 'L. Antošová', is written over the printed name.

Issued on: 2016-10-17




A handwritten signature in blue ink, appearing to read 'P. Vaněk', is written over the printed name.

Dipl. Ing. Pavel Vaněk  
Head of the Certification Department

### 1. Product specification and requested service

The client - **Zemědělské družstvo Haňovice, Haňovice 18,783 21 pošta Chudobín, Czech Republic** - ordered the estimation of the tests of the following samples:

Table 1.

ITC's sample registration No.	Name of the product	Specifications
A 5147	Filament Type: 1,75 PLA yellow-green colour	

### 2. Conformity of product properties with specified regulation

#### 2.1 Specified regulations

Table 2.

Document	
EN 71-3+A1:2014	Safety of Toys: Migration of certain elements

#### 2.2. Place and method of sampling

The samples were delivered by the client. They were taken in compliance with ITC's instructions by random selection of representative samples from the goods delivered.

#### 2.3. Place and date of tests

Tests of the specified properties were conducted in the Accredited Laboratory No. 1004 of the Institute for Testing and Certification, a.s., Zlín, Czech Republic.



## 2.4. Test results and their comparison with the requirements

Table 1. Sample A 5147

Element	Limit (mg/kg)			
	Dry toy material	Sticky toy material	Scrapped- of material of toy	Filament yellow-green color
Aluminium (Al)	5 625	1 406	<b>70 000</b>	< 20,0
Antimony (Sb)	45	11,3	<b>560</b>	< 0,50
Arsenic (As)	3,8	0,9	<b>47</b>	< 0,50
Barium (Ba)	1 500	375	<b>18 750</b>	< 20,0
Boron (B)	1 200	300	<b>15 000</b>	< 5,0
Cadmium (Cd)	1,9	0,5	<b>23</b>	< 0,20
Chromium (Cr – total)	-	-	-	< 0,20
Chromium (Cr III)	37,5	9,4	<b>460</b>	< 0,20
Chromium (Cr VI)	0,02	0,005	<b>0,2</b>	< 0,005
Cobalt (Co)	10,5	2,6	<b>130</b>	< 0,005
Copper (Cu)	622,5	156	<b>7 700</b>	< 0,50
Lead (Pb)	13,5	3,4	<b>160</b>	< 0,50
Manganese (Mn)	1 200	300	<b>15 000</b>	< 5,0
Mercury (Hg)	7,5	1,9	<b>94</b>	< 5,0
Nickel (Ni)	75	18,8	<b>930</b>	< 0,50
Selenium (Se)	37,5	9,4	<b>460</b>	< 0,50
Strontium (Sr)	4 500	1 125	<b>56 000</b>	< 0,50
Tin total (Sn)	15 000	3 750	<b>180 000</b>	< 5,0
Zinc (Zn)	0,9	0,2	<b>12</b>	<0,20

## 3. Conclusion

Sample - Filament Type: 1,75 PLA yellow-green colour (as listed in Table 1) – complied with the technical regulations quoted in Table 2.

## 4. List of related documents

- Application No. 353301330 from 2016-09-05
- Test report of Accredited Testing Laboratory No. 353301330 from 2014-10-14

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