



## Test Results



“TS EN 71-3 : safety of toys”

No	FEATURE	RESULT	STANDARD
1	Gloss level (60° angle)	1.7 GU	TS EN 14323: 2017-04, Art. 5.12
2	Scratch resistance	3.0 Newton (class 4B)	DIN 68861-1: 2013-02
3	Assessment of surface resistance to wet heat (80°C)	5 (no change)	TS EN 12721+A1: 2014-02
4	Assessment of surface resistance to dry heat (100°C)	5 (no change)	TS EN 12722+A1: 2014-02
5	Surface abrasion resistance	35 rev. (class 1)	TS EN 14323: 2017-04, Art. 5.9
6	Resistance to impact by large-diameter steel ball (50 cm)	No cracking	TS EN 14323: 2017-04, Art. 5.13
7	Test of water steam resistance	5 (no change)	TS EN 14323: 2017-04, Art. 5.10
8	Resistance to staining	5 (no change)	TS EN 14323: 2017-04, Art. 5.6
9	Assessment of surface resistance to chemical cold liquids (Acetic acid, acetone, ammonia solution, citric acid, cleaning agent, ethanol etc.)	5 (no change)	TS EN 12720: 2009+ A1: 2015-01
10	Colorfastness to light (400 hour)	5. Grade (according to grey scale)	TS EN 15187: 2009-03
11	Bending strength	53.6 N / mm <sup>2</sup> (plane of the transverse plate direction) 72.0 N / mm <sup>2</sup> (longitudinal plate direction)	TS EN 310: 2009-04
12	Modulus of elasticity in bending	5997 N / mm <sup>2</sup> (plane of the transverse plate direction) 7764 N / mm <sup>2</sup> (longitudinal plate direction)	TS EN 310: 2009-04
13	Surface soundness (tensile strength)	>1.42 N / mm <sup>2</sup>	TS EN 311: 2005-03
14	Tensile strength vertical to the surface	>1.54 N / mm <sup>2</sup>	TS EN 319: 1999-04
15	Thickness tolerance	± 0.3 mm	Gizir
16	Bow tolerance	2.2 mm / m	Gizir
17	Conditioning (40 cycles, 1 h 60°C, 15 min. room temp., 1 h -30°C, 15 min. room temp.)	No damage	TSE (Turkish Standards Institution)
18	Cross-cut test (paints and varnishes)	Classification 1	TS EN ISO 2409: 2013-06
19	Antibacterial test	%99 No problem	TS ISO 22196
20	Fire resistance test	Class: D-s2,d0	EN 13501-1+A1: 2013
21	Density	660 kg / m <sup>3</sup> (± %3)	EN 323
22	Determination of swelling in thickness after immersion in water (24 hours)	Average = % 0,8	TS EN 317: 1999-04
23	Safety of Toys - Part 3: Migration of Certain Elements	Suitable	TS EN 71-3+A3:2018-11