

Report Number: 06	Company Name: Yucel Garden Furniture Industry and Trade Inc.
Report Date: 16.02.2023	Sample Arrival Date: 09.11.2022
References: Analytical, Physical, Spectroscopic, Thermal and Mechanical Methods	Sample: White Colored Stadium Seat Sample

Due to the application of Yucel Garden Furniture Industry and Trade Inc. of Yalova University on 02.02.2023, the technical specifications of the 'White Colored Stadium Seat Sample,' which was submitted to the Polymer Materials Engineering Department, and analyzed according to the standards specified in the technical specification, were reported in this analysis report in the English language. The images of 'White Colored Stadium Spectator Seat Sample' are shown in Scheme 1-a and 1-b.

ANALYSIS RESULTS AND DISCUSSION

- The material structure and content of the White Colored Stadium Seat Sample, whether it is made of original raw materials or not, was examined by spectroscopic and thermal methods.
- The UV degradation of the White Color Stadium Seat Sample was examined by exposing the sample to UV light for 28 days under a 300 W UV lamp, according to the TS EN ISO 4892-2 standard. As a result of this period, the color change in the sample was checked according to the 'grey scale'.
- The mechanical strength of the White Colored Stadium Seat Sample was tested according to TS EN 12727 and TS 13200-4 standards.
- The fire resistance of the White Colored Stadium Seat Sample was examined according to the UL-94 standard.
- The physical properties of the White Colored Stadium Seat Sample stipulated in the technical specification were tested and examined by visual tests.

The results obtained at the end of the tests are given in the conclusion part of the 'Report'.

RESULTS;

1. The material structure and content of the White Colored Stadium Seat Sample was examined by Fourier Transform Infrared (FT-IR) Spectroscopy and Differential Scanning Calorimetry (DSC), and analytical methods. It was determined that the White Colored Stadium Seat

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Sample, whose material structure and content was characterized, was produced from 'ORIGINAL POLYPROPYLENE RAW MATERIALS'.

2. At the end of the UV test of the White Colored Stadium Seat Sample, no loss of brightness was observed on the outer surface exposed to light. The test for resistance to color decoloration of the sample is 4.5 out of 5 on the gray scale.
3. It was determined that the impact resistance and mechanical stability of the White Colored Stadium Seat Sample were in accordance with TS EN 12727 and TS 13200-4 standards, respectively.
4. It was determined that the fire resistance of the White Colored Stadium Seat Sample was in the V2 class according to the UL-94 standard.
5. According to the results obtained from the physical and visual tests performed on the White Colored Stadium Seat Sample;
 - 5.1 The width of the White Colored Stadium Seat Sample was measured as 42 cm,
 - 5.2 The depth of the White Colored Stadium Seat Sample was measured as 42 cm,
 - 5.3 The back height of the White Colored Stadium Seat Sample was measured between 35-40 cm.

CONCLUSION;

The 'White Colored Stadium Spectator Seat Sample', which was produced by Yucel Garden Furniture Industry and Trade Inc., was applicable to standards regarding the technical features required in the Technical Specification.



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a)



b)

Scheme 1. The The images of 'White Colored Stadium Spectator Seat Sample'.



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