

Title: Design of a new test chamber for evaluation of the toxicity of rubber infill

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Abstract: A test chamber was projected and built (according to ISO 16000-9 Standard) to simulate atmospheric conditions experienced by rubber infill (when applied in synthetic turf pitches) and measure accurately the airborne emissions of pollutants such as dusts and volatile organic compounds (VOC), as well as pollutants present in leachates. It should be pointed out that standard ISO 16000-9 is only concerned with the determination of the emission of VOC from building products and furnishing (not specific of synthetic turf materials), whereas other standards are concerned with the emission of leachates only. This procedure is to be considered as a technical option to the lysimeter "global turf system evaluation" when the rubber infill alone is to be evaluated. The advantage of the proposed option considering this "test chamber" is its simplicity and economy. This test chamber is actually installed and being used for tests in LAIST.

Author Keywords: Artificial Turf; Toxicological Assessment; Test Chamber

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