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Record 1 of 1**Title:** Experimental and XFEM Analysis of Mode II Propagating Crack in a Polyurethane Foam**Author(s):** Apostol, DA (Apostol, Dragos Alexandru); Stuparu, F (Stuparu, Florin); Constantinescu, DM (Constantinescu, Dan Mihai); Marsavina, L (Marsavina, Liviu); Linul, E (Linul, Emanoil)**Source:** MATERIALE PLASTICE **Volume:** 53 **Issue:** 4 **Pages:** 685-688 **Published:** DEC 2016**Times Cited in Web of Science Core Collection:** 0**Total Times Cited:** 0**Usage Count (Last 180 days):** 1**Usage Count (Since 2013):** 1**Cited Reference Count:** 13**Abstract:** Mode II testing is performed on a polyurethane foam as a particular case of mixed-mode four-point testing. Crack initiation and propagation in Mode II depends on the geometrical parameters of the testing configuration. Numerical XFEM simulations are done in order to clarify the situations in which the crack doesn't propagate and failure is produced in the region of supports. A combined experimental-XFEM analysis is recommended to fully understand the particularities of the behaviour of cellular materials.**Accession Number:** WOS:000395047100024**Language:** English**Document Type:** Article**Author Keywords:** polyurethane foam; asymmetric four-point bending; Mode II; XFEM; crack propagation**KeyWords Plus:** FINITE-ELEMENT-METHOD; FRACTURE; GROWTH**Addresses:** [Apostol, Dragos Alexandru; Stuparu, Florin; Constantinescu, Dan Mihai] Univ Politehn Bucuresti, Dept Strength Mat, 313 Splaiul Independentei, Bucharest 060042, Romania.

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Reprint Address: Apostol, DA (reprint author), Univ Politehn Bucuresti, Dept Strength Mat, 313 Splaiul Independentei, Bucharest 060042, Romania.**E-mail Addresses:** apostolda@yahoo.com**Publisher:** CHIMINFORM DATA S A**Publisher Address:** CALEA PLEVNEI NR 139, SECTOR 6, BUCHAREST R-77131, ROMANIA**Web of Science Categories:** Materials Science, Multidisciplinary**Research Areas:** Materials Science**IDS Number:** EM0ZN**ISSN:** 0025-5289**29-char Source Abbrev.:** MATER PLAST**ISO Source Abbrev.:** Mater. Plast.**Source Item Page Count:** 4**Funding:**

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