



# Foltuț Daniel

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## ● SUMMARY

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**Senior Materials Engineer specializing in elastomeric materials for sealing and fuel cell applications.**

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## ● WORK EXPERIENCE

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10/2024 - CURRENT - TIMIȘPARA, ROMANIA

### **SENIOR MATERIALS ENGINEER** SCHAEFFLER

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- Elastomer materials specialist for sealing and functional polymer components
- Coordination of material release projects across internal and supplier validation loops
- Root-cause failure analysis of polymeric and elastomeric components
- Mechanical characterization of polymers (tensile, DMA, hardness, aging-related testing)
- Chemical characterization and degradation assessment of elastomers for automotive applications

12/2025 - CURRENT - SÂNTANA, ROMANIA

### **ADMINISTRATOR** BETALEEL STUDIO SRL

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31/07/2019 - 30/09/2024 - TIMISOARA, ROMANIA

### **MATERIALS ENGINEER** VITESCO TECHNOLOGIES ENGINEERING ROMANIA SRL

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- Coordination of material approval processes for polymeric and elastomeric components
- Interface between suppliers, internal laboratories, and design teams
- Support for FEA material data definition, calibration, and validation
- Failure analysis and material selection support for automotive applications

18/04/2018 - 31/07/2019 - TIMISOARA, ROMANIA

### **INTERN** CONTINENTAL POWERTRAIN ENGINEERING SRL

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Material data input for FEA: contact with suppliers, Universities, internal and external laboratories

Failure analysis

Polymeric materials. Generic study for summer practice program

Bachelor thesis done in collaboration with Continental

- Determination of optimal dimensions for a tensile test reinforced polymer plate.
- Prototype mold
- Moldflow simulations

## ● EDUCATION & TRAINING

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01/10/2021 - Current - TIMIȘOARA, ROMANIA

### **DOCTORAL STUDIES IN MATERIALS ENGINEERING (ONGOING)**- POLITEHNICA UNIVERSITY OF TIMISOARA

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**Field(s) of study:**Materials Engineering | **Final grade:** Degree: Doctoral studies (ongoing) | **Level in EQF:** 8 | **Thesis:**

CHARACTERIZATION OF SUSTAINABLE ELASTOMERIC MATERIALS USED FOR SEALING PERIPHERAL COMPONENTS IN PROTON EXCHANGE MEMBRANE FUEL CELL SYSTEMS

08/2019 - 06/2021 - TIMISOARA, ROMANIA

## **MASTER`S-** MECHANICAL FACULTY, POLITEHNICA UNIVERSITY OF TIMISOARA

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Engineering of Products based on Polymeric and Composite Materials

- Communication
- Project Management
- Manufacturing equipment maintenance
- Virtual manufacturing CAM
- Advanced materials in engineering
- Plastic parts design
- Injection molds
- Injected products optics
- Computer aided design

**Field(s) of study:**Engineering, manufacturing and construction not further defined , Materials (glass, paper, plastic and wood) | **Final grade:** 10 | **Level in EQF:** 7 | **Thesis:** Relation between CLTE and fiber orientation for glass fiber reinforced PPS

09/2015 - 06/2019 - TIMIȘOARA, ROMANIA

## **BACHELOR`S-** MECHANICAL FACULTY, POLITEHNICA UNIVERSITY OF TIMISOARA

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*Profile:* Industrial Engineering

*Specialization:* Manufacturing Engineering

Achievements:

- won 3rd place on the national "Strength of materials "contest, Iasi 2017
- won 1st place on local "Machine Elements", Timisoara 2018
- graduated "Integrated engineering" course, sponsored by Contitech

**Final grade:** 9.48 | **Level in EQF:** 6 | **Thesis:** Experimental injection mold for test specimens

2010 - 2015 - SÂNTANA, ROMANIA

## **BACCALAUREATE-** TECHNOLOGICAL HIGH SCHOOL IN SÂNTANA

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## ● **PUBLICATIONS**

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### **Mechanical Performance Degradation of ECO EPDM Elastomers in Acidic Fuel Cell Environments.**

Foltuț, D.; Șerban, V.-A.; Materials, 2025, 18(9), 2071.

### **Chemical Stability and Leaching Behavior of ECO EPDM in Acidic Fuel Cell-Like Conditions.**

Foltuț, D.; Șoșoi, G.-I.; Șerban, V.-A.; Materials, 2025, 18(14), 3260.

### **Tribological Performance of EPDM and TPV Elastomers Against Glass Fiber-Reinforced Polyamide 66 Composites.**

Foltuț, D.; Uțu, I.-D.; Șerban, V.-A.; Materials, 2025, 18(11), 2515.

### **Characterization of a Low-Friction EPDM for Dynamic Sealing Applications: Tensile, Wear Behavior and Hot Water Resistance.**

Foltuț, D.; Șoșoi, G.-I.; Pascal, D.-T.; Uțu, I.-D.; Șerban, V.-A.; Key Engineering Materials, 2025, 1031, 45–53.

### **Current Advancements in the Behavior Analysis of EPDM Elastomers in Peripheral Applications of the Cathodic Side of PEMFC Systems.**

Foltuț, D.; Șerban, V.-A.; Recent Progress in Materials, 2024, 6(4), 1–27.

### **Heat Aging Effect on Tensile Behavior at Different Strain Rates of Thermoplastic Styrene Elastomer.**

Foltuț, D.; Vălean, E.; Dzitac, V.; Batrîna, D.-Ș.; Simoc, O.; Pascal, D.-T.; Șerban, V.-A.; Materials Today: Proceedings, 2023, 78, 257–262.

**The Influence of Temperature on the Mechanical Properties of 3D Printed and Injection Molded ABS.**

Foltuț, D.; Vălean, E.; Dzitac, V.; Marșavina, L.; *Materials Today: Proceedings*, 2023, 78, 210–213.

**The Influence of Temperature on the Tensile Mechanical Properties of PPA.**

Buzdugan, R. M.; Vălean, E.; Gălătuș, B.; Foltuț, D.; Duma, I.; Marșavina, L.; *Solid State Phenomena*, 2022, 332, 51–56.

**Iterative Approach in the Design of the Optimal Configuration for the Injection System of a Test Plate from Composite Material.**

Foltuț, D.; Buzdugan, M. R.; Pascal, D. T.; Stan, D.; *Materials Today: Proceedings*, 2021, 45, 4260–4263.

**Mechanical Properties of Duplex Treated Steels Obtained by Instrumented Indentation.**

Nistor, A. M.; Becheru, A.; Foltuț, D.; Buzdugan, R. M.; Buzdugan, D.; Radu, B.; *Advanced Materials Research*, 2020, 1157, 130–135.

● **CONFERENCES**

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10/2020

**8th International Conference on Advanced Materials and Structures (AMS), Timișoara, Romania**

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with the paper *Iterative approach in the design of the optimal configuration for the injection system of a test plate from composite material*

04/02/2022 - 05/02/2022

**2nd International Workshop on Structural Integrity of Additively Manufactured Materials (SIRAMM), Brno, Czech Republic**

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with the paper *The influence of temperature on the mechanical properties of 3D printed and injection molded ABS*

13/09/2022 - 16/09/2022

**9th Electronics System-Integration Technology Conference (ESTC), Sibiu, Romania**

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08/05/2023 - 11/05/2023

**RubberCon, Edinburgh, United Kingdom**

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31/05/2024

**10th International Conference on Advanced Materials and Structures — AMS 2024, Timișoara, România**

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with the papers: *Impact of Aging on Tensile Properties of EPDM, TPV, and eco-TPV; Characterization of a Low-Friction EPDM for Dynamic Sealing Applications; Comprehensive Study of EPDM Rubber Properties*

07/11/2024 - 08/11/2024

**Innovative Technologies for Joining Advanced Materials TIMA24, Timișoara, Romania**

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with the paper *Characterization of a Low-Friction EPDM for Dynamic Sealing Applications*

● **LANGUAGE SKILLS**

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Mother tongue(s): **ROMANIAN**

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	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
<b>ENGLISH</b>	C1	C1	C1	B2	C1

- **SKILLS**

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**Technical Expertise**

engineering principles | materials engineering | material mechanics | polymer chemistry | rubber technology | engineering processes | write technical reports | coordinate technological activities | analyse scientific data

**Software & Tools**

Good command of Sharepoint Collaboration sites, team sites, digital workplace | MS Office (MS Word; MS PowerPoint; MS Excel; MS Publisher; MS Outlook; MS Teams)

**Professional Skills**

give constructive feedback | think analytically | prioritise tasks | develop strategy to solve problems | teamwork principles | communication | observe confidentiality | accept own accountability | work in an international environment

- **HOBBIES**

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**Hobbies**

Guitar and vocal singing, reading, video editing, jogging, construction.