A Turkish company is looking for an R&D or university partner with experience in polymer formulation, extrusion process, and material characterization to improve PVC venetian blind slide performance and develop sustainable alternative polymer formulations

Summary

Profile type	Company's country	POD reference
Technology request	**Türkiye**	**TRTR20251005001**
Profile status	**Type of partnership**	**Targeted countries**
PUBLISHED	**Commercial agreement with technical assistance**	**• World**
Contact Person	**Term of validity**	**Last update**
Enrico FRANZIN	**5 Oct 2025** **5 Oct 2026**	**5 Oct 2025**

General Information

Short summary

Our company is conducting a project to address quality issues such as warping, dust emission, and breakage in PVC blind slides and to develop environmentally friendly alternative polymers (polypropylene, etc.). As part of this project, we are seeking partners who can collaborate on formulation optimization, the use of environmentally friendly polymers in products, formulation development, and achieving the desired product performance parameters.

Full description

Our company manufactures components for blinds, vertical blinds, and roller blinds in the technical textile and polymer extrusion sectors. We have launched a comprehensive R&D project to address quality issues such as warping, dust migration, and breakage encountered in our existing PVC-based products, while also developing formulations for environmentally friendly alternative polymer materials.

The primary objectives of our project are:

Optimization of existing PVC formulations and extrusion process parameters,

Development of new products using alternative and sustainable polymer materials (polypropylene compounds, etc.),

In this context, we aim to collaborate with universities, research centers, and industrial R&D companies with expertise in polymer formulation, material characterization (TGA, DSC, MFI, mechanical testing, etc.), extrusion process optimization, and screw/barrel design. Furthermore, we prioritize partners working on environmentally friendly polymers and sustainable production processes.

Advantages and innovations

This project aims to directly improve internal production efficiency and product quality, offering a significant competitive advantage. The key benefits of the project are as follows:

Quality and Productivity Improvement: Resolving long-standing problems such as warping, dust migration, and breakage, commonly seen in PVC blinds, will reduce waste rates, enhance product durability, and increase customer satisfaction.

Cost Optimization: Optimized formulations and process parameters will increase raw material utilization efficiency, reduce energy consumption, and lower maintenance costs.

Sustainability and Environmental Compliance: Developing formulations for materials such as polypropylene (PP), a more environmentally friendly alternative to traditional PVC, will diversify our product portfolio and strengthen our company's resilience to potential future PVC restrictions. This translates to compliance with the circular economy and responsible production.

Technical specification or expertise sought

Polymer formulation development (PVC and alternative polymers),

Extrusion process optimization (temperature profile, screw speed, pressure control),

Material characterization (TGA, DSC, MFI, HDT, mechanical testing),

Screw, barrel, and die design,

Laboratory setup and testing methodologies,

Polymer additives and migration analyses,

Expertise in environmentally friendly and bio-based polymers.

Stage of development

Under development

Sustainable Development goals

- **Goal 13: Climate Action**
- **Goal 12: Responsible Consumption and Production**

IPR Status

Secret know-how

IPR Notes

Partner Sought

Expected role of the partner

We are seeking a proactive and expert partner who will collaborate deeply with our in-house R&D and production teams. The expected contribution is multifaceted and crucial for the project's success: Co-Development in R&D: The partner will actively participate in the research and development cycle. This includes: Formulation Expertise: Providing deep knowledge in polymer science to co-develop and optimize new PVC formulations that address migration, bending, and brittleness. Crucially, this includes leading the design and development of novel, high-performance compound formulations based on alternative polymers like Polypropylene (PP) that meet the technical specifications for slat applications. Process Optimization: Collaborating on the design of experiments (DoE) for extruder parameter optimization (temperature profile, screw speed, puller speed, etc.) and analyzing the results to establish stable and efficient production windows for both existing and new materials. Material Characterization & Analysis: Conducting advanced testing (TGA, DSC, MFI, HDT, mechanical properties) and interpreting the data to establish structure-property relationships, failure analysis, and ensure the developed materials meet target specifications.

Type of partnership

Commercial agreement with technical assistance

Type and size of the partner

- **SME 50 - 249**
- **SME 11-49**
- **R&D Institution**
- **University**

Dissemination

Technology keywords

- **02007020 - Biobased materials**
- **02007014 - Plastics, Polymers**

Market keywords

- **08001018 - Polymer (plastics) materials**
- **08001006 - Processes for working with plastics**
- **08001009 - Speciality/performance materials: producers and fabricators**

Targeted countries

- **World**

Sector groups involved