

Plastic Institute

ORT Braude College of Engineering, Karmiel



The goal of the Plastic Institute is to provide R&D services for the plastics industry, focusing on:

- Experimental research
- Computer modeling of processes and materials
- Consultancy services
- Courses for the industry in a variety of R&D topics, in factories or at the college

The institute is located in ORT Braude College, at the heart of Israel's plastics industry.

The institute works alongside the college's company for commercialization and implementation, **Ofek Eshkolot Research and Development, Ltd.** The company directs faculty members towards useful R&D, creation of intellectual property (patent writing), and facilitation of business cooperation with industry.

■ Contacts / Clients in industry

- Golan Plastic Products
- Rion Industries, Kibbutz Cabri
- Keter Plastic Ltd.
- Paskal - Greenhouses Solutions
- Osem-Nestle
- NILIT Plastics
- Rafael Advanced Defense Systems Ltd.

■ Software licenses

- Molecular modeling software
- Software for polymer mold flow analysis
- Software for optimizing injection molding products

■ Institute Staff

- **Dr. Dafna Knani** – Faculty member in the Biotechnology Engineering Department and head of the MSc program. Highly experienced in molecular modeling and the plastics industry
- **Dr. David Alperstein** – Faculty member in the Mechanical Engineering Department and the plastic materials center. Highly experienced as a consultant for the plastic materials industry, and one of the pioneers in molecular modeling in Israel.
- **Hanan Anderman, Dipl.Ing.** – senior technology advisor. 35 years experience developing plastic products, including feasibility evaluation for new projects demanding plastic components and development of new technologies for special needs. Trouble shooting of the toughest processing problems in thermoplastics

■ Institute Equipment

Plastic material processing equipment

- Industrial injection molding machine
- Lab extrusion machine

Analytic equipment

- Differential scanning calorimetry device (DSC)
- Dynamic-mechanical analysis device (DMA)

- IR absorption device (FTIR)
- Polymer melt flow index device (MFI)
- Creep testing machine
- Impact testing instrument
- Tensile testing machine
- Scanning electron microscope



Ofek Eshkolot provides the means for implementing advanced technologies and research developed at ORT Braude College. The Ofek Eshkolot company directs staff towards applied research opportunities, creation of intellectual property (such as patents), and commercialization. Ofek Eshkolot bridges the gap between the business world and academia. The company is collaborating with **Fraunhofer** – a large European research organization – and invites additional local and worldwide industrial companies to participate in joint research.

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