



MANUFACTURING AND PRODUCTION

Polymer Production and Plastics Processing

5 day course

Classroom, online or in-house

Course overview

Polymer properties are set by the reactor and confirmed or destroyed in processing, which makes production and conversion one subject rather than two. This course covers both. Delegates work through polymerisation chemistry and the reactor types used, molecular weight and distribution and how each affects processing behaviour, and catalyst and additive systems. Extrusion, injection moulding and film processes follow, each tied to the polymer properties they demand. Quality testing and specification are covered. The course closes on recycling and circularity, including the contamination and property loss that limit what recycled material can be used for.

What you will learn

- Explain polymerisation chemistry and the reactor types used
- Relate molecular weight and distribution to processing behaviour
- Select catalyst and additive systems for a target grade
- Operate extrusion, injection moulding and film processes
- Test polymer properties and interpret the results
- Diagnose processing defects from polymer properties
- Assess recycled material against an application's requirements

Who should attend

- Polymer plant process engineers
- Plastics conversion and moulding staff
- Quality and laboratory personnel
- Product development staff
- Production supervisors in plastics manufacturing

Course outline

- 01 Production and processing as one subject
- 02 Polymerisation chemistry and reactors
- 03 Molecular weight and distribution
- 04 Catalysts and additives
- 05 Extrusion
- 06 Injection moulding and film processes
- 07 Quality testing and specification
- 08 Recycling, contamination and circularity

Upcoming dates

Dates	Venue	Format	Fee per delegate
19 to 23 October 2026	Maputo, Mozambique	Classroom	USD 1,325
7 to 11 December 2026	Pretoria, South Africa	Classroom	R19,950
21 to 25 December 2026	Accra, Ghana	Classroom	USD 1,325
11 to 15 January 2027	Online	Online	R8,500



Fees and how to register

This 5 day course is **R8,500** per delegate online, **R19,950** in the classroom in South Africa, Botswana, Namibia, Lesotho and Eswatini, and **USD 1,325** in the classroom elsewhere in Africa. In-house training is quotation on request. Book 2 or more delegates on this course and save 10%.

To register or request an in-house proposal, visit www.afrisciencegroup.com, email info@afri-science.co.za, or WhatsApp us on **+27 63 479 1136**.

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