

**MANUFACTURING AND PRODUCTION**

Rotational Moulding and Large Container Manufacture

3 day course

Classroom, online or in-house

Course overview

Rotational moulding makes large hollow products from powder with almost no pressure, which makes it forgiving of tooling cost and unforgiving of time and temperature, because the only real control a moulder has is the oven cycle. This course covers using it well. Delegates work through the process cycle and what happens to the powder at each stage, from tumbling and adhesion through coalescence to densification. Material selection is addressed, principally polyethylene grades, powder quality and particle size distribution. Internal air temperature is treated as the central control, since surface readings do not describe what the part is doing. Undercure and overcure are covered, with the mechanical consequences of each. Cooling is addressed, including warpage and shrinkage. Mould design, venting and release follow. Wall thickness control and inserts are covered. Defects are diagnosed: bubbles, pinholes, bridging and poor corner filling. The course closes on tank testing, on ultraviolet stability and on product certification.

What you will learn

- Explain what happens to powder through the moulding cycle
- Select polyethylene grades and assess powder quality
- Use internal air temperature as the primary control
- Recognise undercure and overcure and their mechanical consequences
- Control cooling to limit warpage and shrinkage
- Design moulds with correct venting, release and insert provision
- Diagnose bubbles, pinholes and bridging, and test finished tanks

Who should attend

- Rotational moulding operators and supervisors
- Process engineers in tank and container manufacture
- Quality staff testing moulded tanks
- Product developers specifying rotomoulded parts
- Maintenance staff supporting rotomoulding plant

Course outline

- 01** Time and temperature are the only controls
- 02** The cycle from tumbling to densification
- 03** Polyethylene grades and powder quality
- 04** Internal air temperature control
- 05** Undercure and overcure
- 06** Cooling, warpage and shrinkage
- 07** Mould design, venting, release and inserts
- 08** Defects, tank testing, ultraviolet stability and certification

Upcoming dates



Dates	Venue	Format	Fee per delegate
30 September to 2 October 2026	Cape Town, South Africa	Classroom	R14,950
11 to 13 November 2026	Pretoria, South Africa	Classroom	R14,950
28 to 30 December 2026	Durban, South Africa	Classroom	R14,950
10 to 12 February 2027	Mbabane, Eswatini	Classroom	R14,950

Fees and how to register

This 3 day course is **R6,500** per delegate online, **R14,950** in the classroom in South Africa, Botswana, Namibia, Lesotho and Eswatini, and **USD 995** 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@afriScience.co.za, or WhatsApp us on **+27 63 479 1136**.

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