

# INJECTION MOULDING

Injection moulding is at the core of FRP's business model as the process is flexible for both prototyping and production components. From the smallest medical cleanroom parts to large automotive panels, we have a wealth of experience and expertise in providing validated parts with properties that meet your specific requirements.



## Processes

- Rapid toolmaking in Steel or Aluminium
- Choice of tool life – 5k, 50k, 100k, 1m+
- Injection mouldings from presses 10 - 5,000 tonnes
- Twin-shot and overmoulding capability
- Cleanroom moulding – ISO Class 7 and 8
- Gas injection/EPP mouldings for lower weight components
- Mould tool texturing and laser-etching

## Typical Materials

- Full range of thermoplastic materials available, including high percentage glass and mineral filled and metal replacement polymers

- Liquid Silicone Rubber (LSR) injection and compression methods
- EPDM/rubber moulding including synthetic fluoropolymers
- Compounded and Masterbatch materials available
- Decorative finishes and in-mould decoration

## Examples

- Regulated medical devices eg. inhalers, injection devices
- Car bumpers and interior panels
- Metal replacement under bonnet parts eg. inlet manifold
- Technical mouldings eg. printer parts and glass replacement

Process	Time	Material	Quantity	Examples
Toolmaking - small-medium	2-3 weeks	Steel cold runner tools	Up to 100k	Low volume manufacture and prototype tooling
Toolmaking – large/technical	3-5 weeks	Steel hot runner tools	Up to 1 million	High volume production tooling
Mouldings	1-2 weeks	All	From low volume to 1 million+	Small assemblies

