

**overtec**   
low cost moulding



*High quality, low cost moulding process*



# overtec<sup>®</sup> low cost moulding

High performance, cost effective moulding resin

The overtec<sup>®</sup> system is a low-pressure moulding process that uses thermoplastic moulding resin to achieve high quality sealing and protection of components, faster than 2 component potting resins and far lower capital cost than injection moulding. A process innovation positioned between casting/potting and high pressure, high volume injection moulding, the overtec<sup>®</sup> system uses a low injection pressure which allows for low cost tooling and prevents damage to fragile components. The overtec 5 FR resin sticks simply need to be loaded into the overtec 820-15 glue gun and allowed to reach operating temperature before use, resulting in a simple and clean process with fast cycle times.

## Benefits

Overtec<sup>®</sup> moulding resin has a number of advantages when compared to other resins and moulding processes.

- **High performance:** the properties of this material mean that it can offer water-tight encapsulation (up to IP68+), water and chemical resistance, and excellent upper and lower heat resistance
- **Speed of application:** the overtec<sup>®</sup> resin is applied without mixing and sets faster than two part systems
- **Reduce inventory:** over moulding eliminates the need for housings and casings, saving on component cost and reducing inventory
- **Lower cost tooling:** Low pressure over moulding tools for overtec<sup>®</sup> resin injection are a fraction of the cost of high pressure injection moulding tools. You can find our over moulding design guide here: <http://adhsv.es/overtecmg>
- **Lower volume:** the overtec<sup>®</sup> system is ideal for low volume over moulding applications where high cost tooling and large injection moulding runs would be prohibitive
- **Solvent free:** overtec<sup>®</sup> moulding resin is solvent free and composed primarily of renewable materials, making it environmentally friendly



## Disadvantages of other systems

Other systems have multiple drawbacks when compared to overtec<sup>®</sup> moulding resins:

- injection moulding can carry higher costs when compared to the overtec<sup>®</sup> system
- not only are 2 component potting resins more time consuming to use, they are also wasteful
- potting requires traditional housings and castings, which can add time and expense

## Overtec<sup>®</sup> moulding

The most popular applications for the overtec<sup>®</sup> moulding system are electronic component encapsulation, connector potting, grommet injection, automotive electronics, PCB over moulding, moulded connectors and sensors, and many more. In many cases, the moulding can protect the various components against environmental conditions, help to obtain strain relief, provide a tamper proof covering for components and keep the moulded part in the correct position for use.

The process couldn't be simpler: load an overtec 5 FR resin stick into the overtec 820-15, switch on and allow it to reach operating temperature. Open the mould set and place the component inside, then securely close the mould with the component inside.

Insert the nozzle of the gun into the injection port at the side of the aluminium mould, and dispense the liquid resin. Fill the mould quickly while trying to keep the flow consistent. When the mould is full, the trigger action of the glue gun will harden, but trigger pressure should be maintained for a few seconds to prevent any shrinkage. The resin will set within a few seconds, by which time the mould can be opened and the newly over moulded pieces removed.

**The finished component cost, capital outlay, and time to market can be reduced significantly with the overtec<sup>®</sup> moulding system.**



# Overtec® moulding resin

Overtec 5 FR is a brand new polyamide moulding resin specifically designed for use in over moulding. A highly mouldable material, it has excellent electrical properties, too.

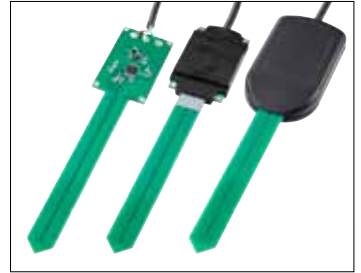
- Excellent chemical resistance and thermal durability
- Upper heat resistance of 135°C (286°F), and a lower temperature flexibility of -35°C (30°F)
- Good chemical and water resistance, excellent electrical resistance and dielectric strength
- Excellent electrical insulator
- Suitable for creating over moulds that will pass IP68+ immersion tests



Overtec 5 FR also provides a higher output than many casting applications, reducing cycle times and labour costs.

Overtec 5 FR is available in 15mm x 250mm (5/8" x 10") sticks, packed in 5kg (11lbs) cartons or 10 x 6 stick foil packs.

The 15mm (5/8") diameter sticks allow higher volumes of resin to be dispensed with each trigger pull which, in turn, allows the user to fill the mould faster.



Learn more! Scan for over moulding design guide



Reference	Description
OVERTEC5FR-15-250	Black 10 x 6 stick packs
	Black 2 x 2.5kg (5½ lbs) packs in 5kg (11lbs) carton

## Injection gun



### Overtec 820-15

Specialist 15mm (5/8") glue gun that runs at a higher temperature than normal, with adjustable temperature control. By adjusting the temperature, the operator can control the flow and shrinkage around the component. Robust and easy to use, this glue gun has fast recovery, medium output, 2 minute warm-up time and an illuminated on/off switch.

Melt rate	2.5kg (5½lbs)/hr
Glue size	15mm (5/8") glue stick
Voltage	120V and 230V
Wattage	300W
Heater	Cartridge
Temperature Control	User adjustable thermostat
Hotmelt gun °C (°F)	Adjustable 155-220°C (310-430°F)
Lowmelt gun °C (°F)	Covered above
Power cable	3m (10 ft)
Weight	500g (18oz)
Packaging	Plain box (10 per ctn)



## Accessories

### Metal gun stand



The optional metal tec stands are ideal for when the glue gun is being used repetitively at a work station, making it a convenient repository for the gun between applications.

Reference	Description	Overtec 820-15
MDC009	For 600 & most 800 series tools (can be wall mounted)	<input type="checkbox"/>

### Tec mat



This silicone rubber drip mat, size 200mm x 200mm (8" x 8"), can be used underneath the glue gun to protect work surfaces against damage caused by molten resin.

Reference	Description	Overtec 820-15
TEC MAT	Silicone rubber drip mat protects work surface	<input type="checkbox"/>

### Spring balancer



If the tool is being used for repetitive work over a work surface, then the tec SB-1200 spring balancer is an economic tool support system with easily adjustable tension control. Capable of supporting tools up to 1.5 kilos (3.3lbs) in weight, it has a maximum extended cord length of 1.6 metres (5ft).

Designed to minimise operator fatigue, it also increases productivity and reduces the chance of accidental damage to the applicator. Other models also available for balancing heavier weights.

Reference	Description	Overtec 820-15
SB-1200	Spring balancer for tools up to 1.5kg (3lbs)	<input type="checkbox"/>

If you have any questions, or need any additional information about the overtec® system, just contact us using the details at the bottom of the page.



Europe's leading hot melt adhesive specialist. Offering the largest range of performance adhesives and hand-held applicators.



40+ years' experience, offering specialist knowledge on all aspects of commercial gluing operations.



Advanced technology at our UK facility and a continuous programme of research and development ensures that we continue to meet the ever changing needs of industry.



Our adhesives are often formulated using raw materials harvested from sustainable managed forests. Our packaging is recyclable, and where possible, made from recycled materials.



Over 90% of our products are made in Britain, and we offer 12 months' warranty as standard on all equipment.