

Commercial Tool Room & Plastic Moulding



Since 1981, we are manufacturing Injection moulds, Die casting dies & moulded components for many Industries across India. Constant upgradation of facilities has ensured that we are one of the most advanced and contemporary tool rooms & moulding shops in India.

Making Moulds & Moulding is
everyday business for us

Our distinction is our skilled manpower, state of the art infrastructure and robust system to deliver right first time. This combination helps us to deliver faster and better.

Since inception, we have made plenty of Moulds & PDC dies in the following classification

- ④ Thermoplastic injection moulds
- ④ Thermoset injection moulds
- ④ Over moulding
- ④ Insert moulding
- ④ Hot runner moulds
- ④ High cavitation moulds
- ④ Two and three plate moulds
- ④ Die casting dies
- ④ Medical moulds
- ④ Connector moulds

Tool Capability profile – Commercial Tool Room

- ④ Mould size : upto 1250mm x 850mm
- ④ Mould weight: upto 6MT
- ④ Component accuracy: upto 20 microns
- ④ Mould life: upto 10Mn shots



Our DFM and mould design process involves stringent evaluation to bring success right first time.

DESIGN CAPABILITIES

A team of talented and experienced design team work on the most advanced work stations with latest softwares like

- ▶▶ Pro E-Creo3,
- ▶▶ Solid Works 2016,
- ▶▶ UG NX11,
- ▶▶ Auto CAD-2016 &
- ▶▶ Moldex-Mold Flow

with which the ideas are given a shape before turning into reality.



CERTIFICATIONS



TS - 16949
Automotive



IMS - Quality
Environment & Safety



5S
House Keeping

We use accessories of international repute; we offer the following grades of moulds.
As per American Society of the Plastic Industry, Inc.

Mould class	Mould life cycles	Production Level	Usage	Cost/Value
I01 Mould	1 million or more	High	Extremely high production and fast cycle times	Class I01 moulds are the highest priced and made with only the highest quality materials
I02 Mould	Not More than 1 million	Medium to High	Good for parts with abrasive materials and/or tight tolerances	Class I02 moulds are fairly high priced and made with materials of exceptional quality
I03 Mould	Not exceeding 500,000	Medium	A very popular mould for low to medium production parts	Class I03 moulds fall within common price ranges
I04 Mould	Not exceeding 100,000	Low	Good for limited-production parts with non-abrasive materials	Class I04 moulds fall within low to moderate price ranges
I05	Not exceeding 500	Prototype only	Good for abrasive materials and/or parts with tight tolerances	Class I05 moulds are built inexpensively to produce a very limited number of product prototypes

RFQ FORM - COMMERCIAL TOOL ROOM



LAKSHMI ELECTRICAL CONTROL SYSTEMS LIMITED
Commercial Tool Room

Injection Mould Quote Enquiry

Enq.No:	
Name of the product	
Product Image	
No of cavity Required	
Weight of component	
Process Material	
Type of runner (Cold / Hot)	
No of parts required in mold life / Mould Material (steel)	
Surface Finish / Any Special Requirement on the Product	
Special Note (optional)	
Expected Cycle time (seconds)	
Expected Tonnage of Machine (T)	
Expected Mould Dimension (L X W X H) mm	
Mould Trial Cost	
Lead time for 1'st trial	
Mould warranty / Mould Life (S) 10% maintenance free	
Payment Terms	
Delivery Required by Date / Delivery time allowed Incoterms 2010 (EXW/ FOB Cbe/ FOB India/ CIF (destination)/ DAP (Destination)/ DDP(Destination)	

Additional notes:

MOULDING

LECS as a full service custom injection moulding supplier serving in the automotive, health care, consumer electronics, Industrial, and appliance markets.

With our 30 plus injection moulding machines ranging from 40 T to 350 T machines of different makes like Engel and Toshiba, our focus is on supplying high quality plastic products

Our moulding capabilities include:

- ▶▶ Horizontal and vertical moulding machines
- ▶▶ Over moulding and insert moulding
- ▶▶ Valve gate and hot runner moulding
- ▶▶ Materials ranging from commodity resins to highly engineered resins and Thermo sets
- ▶▶ High volume, fully automated work cells to low volume and prototype runs
- ▶▶ Post moulding operation like pad printing, Ultra-Sonic Welding, coil winding, soldering, bar coding and assembly operations.

- ★ **Product profile – Injection moulding**
- ★ **Materials: Thermoplastic/ Thermoset**
- ★ **Component weight : 0.2 gram to 1 kg**
- ★ **Component size: 500mmx500mm**
- ★ **Minimum wall thickness: 0.5mm**

Plastic Raw Materials:

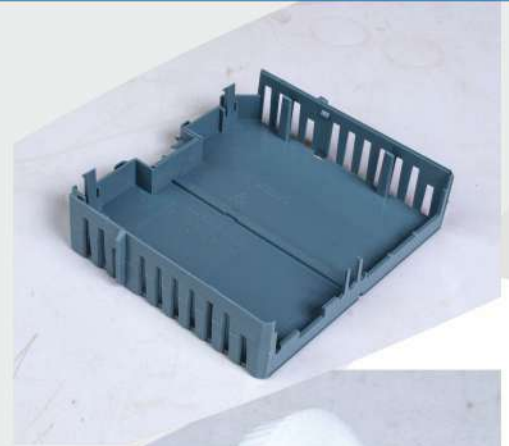
Polyamide (Nylon) 6/66, PA4/6/ Noryl, Polyacetals, Delrin, POM, PEEK, ABS, PP, ABS-PC Alloy, PC, HDPE, PBT , HIPS, Phenol formaldehyde, Urea Formaldehyde, etc.,

Colouring options:

Natural/ Pre-coloured/ Masterbatch/ Pigment

Other options:

UV stabilized, FR (Flame Retardant), heat stabilized, GF up to 60%, Glass beads upto 50%



What really counts: “Cost per component”

Choosing the right material depending on application can result in increased performance and reduced cost, there is no “one size fits all” solution when it comes to the production of moulded plastic parts. Here is a glimpse of various plastics with properties and its application

Material	Key Properties	Application	Tensile Yield	Flexural Strength	Flexural Modulus	Izod Impact Strength Notched	Heat Deflection Temperature under Load	Density
ABS	Common thermoplastic with good impact resistance and toughness. Good Aesthetics with less strength, post operations like painting and electroplating are possible. ABS components are flexible. Costs less.	Automotive parts, common appliances in a kitchen, drain pipe systems, and many other products.	45 MPa	80 MPa	2,620 MPa	292 J/m	88°C	1.05 g/cc
Polypropylene PP	Thermoplastic polymer used for a wide number of applications. Low cost, flexible, low strength, availability in food grade excellent impact strength, and does not break down easily from reactions with water, acids, and detergents	Utensils, athletic apparel and automotive parts such as car batteries.	35 MPa	180 MPa	1,450 MPa	32 J/m	102°C	0.90 g/cc
Polyoxymethylene POM	Dimensionally stable thermoplastic with high stiffness and low friction.	High performance components such as gear and fasteners. watch bracelets, zippers, insulin pens and metered dose inhalers. milk pumps and coffee spigots,	70 MPa	100 MPa	3,100 MPa	75 J/m	102°C	1.42 g/cc
Polycarbonate PC	Thermoplastic material with good temperature resistance and impact strength. Basic Engineering plastic, High strength, High impact resistance, Transparent clear and colour tinted parts.	Automotive components, medical devices, digital disks like DVDs, eyewear lenses and cellular phones.	62 MPa	124 MPa	2,335 MPa	795 J/m*	143°C	1.20 g/cc
Polycarbonate + ABS	Blend of PC and ABS that creates strong parts for a variety of applications.	Automobile instrument panels, wheel covers. Computer and business machine housings, electrical applications, cellular phones, Adapters and chargers, Keypads, TV Frames, Laptop monitor enclosures, Structural components.	55 MPa	90 MPa	2,550 MPa	689 J/m	94°C	1.15 g/cc
PVC	PVC is a polymer with good insulation properties, high hardness, and good mechanical properties.	Building and construction, health care, electronics, automobile and other sectors, in products ranging from piping and siding, blood bags and tubing, to wire and cable insulation, windshield system components.	31 MPa	50 MPa	1,900 MPa	795 J/m*	108°C	1.35 g/cc
Nylon / Polyamide PA	Polymer material that is durable with high elongation and good abrasion resistance. Electrical properties, toughness, wear resistance and chemical resistance. Nylon has a high level of stability (helps with strength) and is resistant to many external factors like abrasion, impact and chemicals. Low wall thickness can be moulded easily.	Automotive products, Medical products. Sports equipment, apparel and footwear and Industrial components	58 MPa	65 MPa	1,200 MPa	111 J/m	88°C	1.14 g/cc
Nylon Glass Fibre filled	Polymer with excellent mechanical stiffness and elevated temperature resistance.	Components such as "under-bonnet" automobile parts and most components on wind-surfers.	125 MPa*	200 MPa	6,200 MPa*	133 J/m*	193°C	1.38 g/cc
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Acrylic PMMA	Material with resistance to breakage often used for transparent applications.	Car windows, motorcycle windshields, interior and exterior panels, fenders, automotive headlamps, car indicator light covers, interior light covers glass roofing	65 MPa	58 MPa	1,725 MPa	53 J/m	83°C	1.17 g/cc
Styrene	Light weight material popular for its high impact strength and toughness.	Thin walled packages, pipe mouldings for construction industry, signage, rigid foodservice containers, CD cases, appliance housings	45 MPa	65 MPa	3,030 MPa	101 J/m*	79°C	1.05 g/cc
Polyetherimide PEI	Thermoplastic with high heat resistance and excellent mechanical properties.	Headlight reflectors, fog light reflectors, bezels and light bulb sockets, Electrical switches and controls, Electrical motor parts, Connectors	110 MPa	165 MPa	3,500 MPa	53 J/m	204°C*	1.27 g/cc

RFQ FORM - PLASTIC MOULDING SHOP



LAKSHMI ELECTRICAL CONTROL SYSTEMS LIMITED

Plastic Moulding Shop

Injection Moulded Component Quote Enquiry

Enq.No:	
Name of the product	
Product Image	
Estimated quantity required per annum	
Weight of component	
Process Material	
Insert(if any)	
Master Batch(if Any)	
Mould Dimension (L X W X H) mm	
Type of mould (Cold / Hot)	
2plate/3 plate	
Ejection type	
Estimated Cycle time (S)	
Estimated Tonnage (T)	
Additional notes:	



The LECS Squadron...



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