

THERMOPLASTIC EXTRUSIONS





Tailor-made
Thermoplastic Extrusions



WORLD-CLASS MANUFACTURER

Welcome to CPV Ltd. We are a privately-owned British manufacturer of thermoplastic products that are used throughout the world in a vast array of applications. Founded in 1948, CPV was one of the pioneers in the development of thermoplastic pipe systems and, to this day, we remain committed to driving forward innovation in products, services and manufacturing techniques. This not only improves the way in which our products perform, but it often lowers our clients' capital and operational expenditure.

Alongside our standard range of products, we have developed an enviable reputation for producing custom extrusions - taking advantage of our responsive and flexible production plant based in Hampshire.

TYPES OF PRODUCTS

In essence, if it can be extruded, we can produce it. Offering both tubular and profiled sections, our modern facilities can offer a custom range of dimensions from a wide choice of thermoplastic materials – in any colour. We not only have a vast stock of existing tooling, but our engineers can skilfully produce bespoke tooling to meet individual requirements – enabling our round-the-clock production shifts to manufacture custom orders efficiently and on time. The list detailed below provides just a few examples, however, if your application is not shown, please contact our sales team as it is highly likely that we'll be able to assist with your requirements.

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Size Range

Our modern extruders can produce products ranging from 10mm diameter up to 630mm – with wall thicknesses available from 0.5mm to 50mm. Extrusions can be delivered in straight lengths from 200mm up to 12m and longer lengths subject to the chosen dimensions.

We are also able to provide customised printing directly on to the finished product and can also extrude with integral longitudinal stripes in a wide range of sizes and colours to aid easy identification.

Special Material Properties

In addition to standard materials, we can also cater for a client's special requirements such as UV Stability and fire retardancy.

Quality Assured

With the objective of providing total customer satisfaction, CPV maintains an effective and efficient total quality

management system which complies with BS EN ISO 9001. This system is continually reviewed for effectiveness and continual improvement – feedback from which is helping shape company objectives.

The Environment

At CPV, we strive to minimise our organisation's impact on the natural environment. All of our waste materials are reprocessed and reused as second-grade raw materials in the manufacture of plastic products. In addition to this, we have been carefully managing the 85-acre site that accommodates our production facility and headquarters – having recently planted 20 acres of mixed woodland to encourage wildlife. It is also our aim to generate our on-site energy requirements from sustainable sources in the coming years – further reducing our carbon emissions.

Examples of Applications

List of example applications/products:



Horse showjumping poles



Cheese production tubes



Conveyor rollers



Pipes and Ducts



Tree guards



Paper cores



Pipe and Ducts

In addition to our well established CPV-branded pressure and high-integrity drainage pipe systems, we are able to offer pipe and ducting manufactured to recognised European and International Standards, as well as to a customer's bespoke specifications. These are employed for applications in a multitude of markets that include, but are not limited to:

- Building services
- Industrial process
- Civils
- Agriculture
- Petrochemical
- Pharmaceutical
- Geothermal services

Pipe and ducting can be manufactured from a wide range of materials, including:

- Polypropylene
- ABS
- Polyethylene
- PEX
- PVDF
- PPS

Where required, we can also offer testing and certification to demonstrate compliance with relevant standards and approvals.



Packaging Items

Core Tubes

Available in a variety of materials, including PP, HDPE and ABS, our core tubes are the perfect and long-lasting alternative to the traditional cardboard/paper type. They provide good strength and durability for a multitude of uses, including winding of yarn, thread, plastics, adhesive and insulation tapes, paper, boards, food grade films, fabrics and carpets.

We can manufacture the core tubes to meet specific requirements to diameter, wall thickness and length - including longitudinally-striped pipes for easy identification.

Food and Beverage

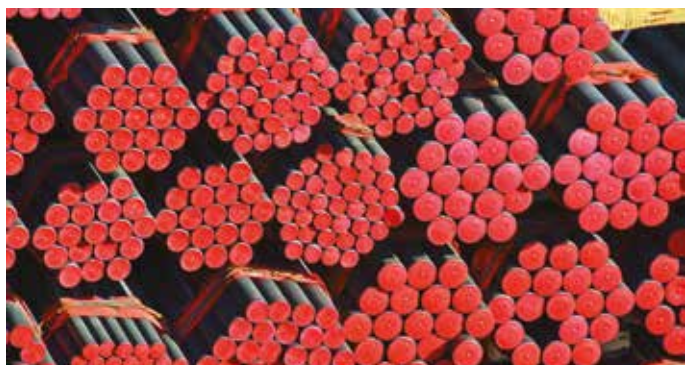
Cheese Production Tubes

We have produced plastic tubes for the manufacture of cheese in fully-approved food-grade thermoplastic materials. Please contact us for further information.



Pharmaceutical and Process Applications

We manufacture tubes for use by the pharmaceutical and process sectors in various colours, sizes and a range of suitable polymer materials.



Packaging Tubes

To fit a range of applications, such as documents, maps, artwork and fishing rods, our tubes can be manufactured in a range of dimensions and lengths and can be supplied with suitable cap ends to offer complete protection.



Sports and Leisure

Showjumping Poles (Equine and Canine)

Manufactured from a choice of tough polypropylene or HDPE, our showjumping poles are built to be resilient and made to last in the rough and tumble of a showjumping environment.

We can extrude a variety of sections, including round, square, rectangle and D-shaped – with wall thicknesses and lengths according to specific requirements.

Available in a range of colours, all colour-fast and providing excellent UV stability, our poles have been widely used throughout the equestrian sector.

Racecourse Railings

Extruded tubes which are bent to form a curve at one end – they are available in a range of materials, but typically polypropylene for use with a push-fit connection system.



Materials Handling

Conveyor Rollers

Available in a choice of durable materials with low-frictional properties and high abrasion resistance, our conveyor rollers provide impressive performance and low-cost alternatives to metal-based alternatives.

We also offer selection of extruded tubes with either internal or external grooves/splines for use on conveyor systems. Please contact us to discuss your specific requirements.

Fencing and Traffic Management

Traffic Posts and Barrier Fences

We can manufacture traffic posts and barrier fence tubes in a choice of sections – including round, square/rectangular and d-shaped – according to customers' specific requirements.



Utilities and Building Services

Building Services and Utility Pipe Sleeving

Protecting pipes where they pass through building structures, we can manufacture pipe sleeving to a range of dimensions and wall thicknesses to meet the specific demands of a site and the relevant building regulations.

Smoke Aspiration Pipes

We can manufacture a system of smoke aspiration pipes and fittings to be used in conjunction with smoke detection systems. Typically using ABS, we can produce tailored dimensions and colours to meet the need of a site's specific requirements and any relevant building regulations.

Sub-Sea Communications Systems

We can manufacture special-grade extrusions for use with sub-sea communication systems, using materials such as LLDPE to withstand harsh conditions at extreme depths.



Standard CPV Products

CPV has built its reputation on the design, development and manufacture of a world-class range of engineering pipe systems that cater for the safe and efficient transportation of aggressive, corrosive, hot, chilled and potable liquids. Please contact us or visit our website www.cpv.co.uk for further information.

Materials Options and Specification

We can manufacture our products in a wide range of thermoplastic materials. We have listed the common choices below and their general properties. Please contact us should you have a requirement that is not listed as we are constantly developing our materials and extrusion techniques.

Acronym	Full Name	Key Properties	Temperature Range
ABS	Acrylonitrile Butadiene Styrene	Exceptional impact strength, it is non-toxic and suitable for use at low temperatures. Lightweight, it is joined with solvent cement and has good chemical resistance making it ideal for most pipework applications	-40°C to 70°C
HDPE	High-Density Polyethylene	Widely used for buried utilities such as gas and water, it has low frictional loss, excellent resistance to abrasion and chemicals	-40°C to 60°C
MDPE	Medium-Density Polyethylene	Suitable for both fusion and compression-type fittings, it is resistant to aggressive chemicals and abrasion	-40°C to 60°C
LDPE	Low-Density Polyethylene	Outstanding flexibility at low temperatures with good chemical resistance. Potable water grades available	-40°C to 60°C
LLDPE	Linear Low-Density Polyethylene	LLDPE has higher tensile strength and higher impact and puncture resistance than LDPE. It is very flexible and elongates under stress. It can be used to make thinner walls, with better environmental stress cracking resistance. It has good resistance to chemicals and good electrical properties	-40 °C to 50°C
HIPS	High-impact Polystyrene	Very tough, its crystal-clear transparency makes it ideal for packaging and point of sale applications. Limited resistance to dilute acids and alkalis. Not suitable for outdoor use	0°C to 70°C
PEX	Cross-linked Polyethylene	Good chemical resistance, it is flexible and has excellent mechanical properties	0°C to 95°C
PP	Polypropylene	Has excellent resistance to chemicals and high levels of heat, plus good abrasion resistance.	-10°C to 110°C
PVDF	Polyvinylidene Fluoride	Highly flexible, it is lightweight, has low thermal conductivity with extremely high chemical corrosion and heat resistance	-20°C to 130°C
Filled PP	Filled Polypropylenes	Increases rigidity of standard polypropylene	-10°C to 110°C

Friction Resistance

The table below offers a comparison of different types of polymer and their resistance to abrasion and friction – ranked in order of resistance.

1	PP-HP	Polypropylene Homopolymer: very good friction properties and good abrasion resistance. Working temperature range is advantageous
2	PP-CP	Polypropylene Copolymer: Slightly less friction resistance than Homo Polymer, but good all-round mechanical strength. Excellent temperature resistance
3	PEX	Cross-linked Polyethylene
4	HDPE	High-Density Polyethylene
5	MDPE	Medium-Density Polyethylene
6	LDPE	Low-Density Polyethylene
7	LLDPE	Linear Low-Density Polyethylene
8	PVDF	Polyvinylidene Fluoride
9	ABS	Acrylonitrile Butadiene Styrene: has poor friction co-efficient and only average abrasion resistance.
10	HIPS	High-impact Polystyrene: very poor friction and abrasion resistance

About CPV Ltd

CPV operates in a wide array of sectors, with products satisfying many applications, most of which concern engineering pipe solutions for aggressive, corrosive, hot, chilled and potable liquids.

Our state-of-the-art production facility - based at the site of our headquarters near Romsey in Hampshire - is backed by a comprehensive selection of research, design, engineering, testing, quality, training and support services; ensuring the perfect marriage between our products and the applications they serve.

Product Solutions

Since our inception in 1948, we have regularly led the way in the research and development of pipe systems, tanks and vessels. Our current range encompasses:

- Pre-insulated Pipe Systems
- Chemical and Hazardous Drainage Systems
- Pressure Pipe Systems
- Tanks and Vessels
- Custom Extrusions
- Custom Thermoplastic Fabrications
- Heat exchanger solar panels

The details of our full range of products can be found on our website:
www.cpv.co.uk

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