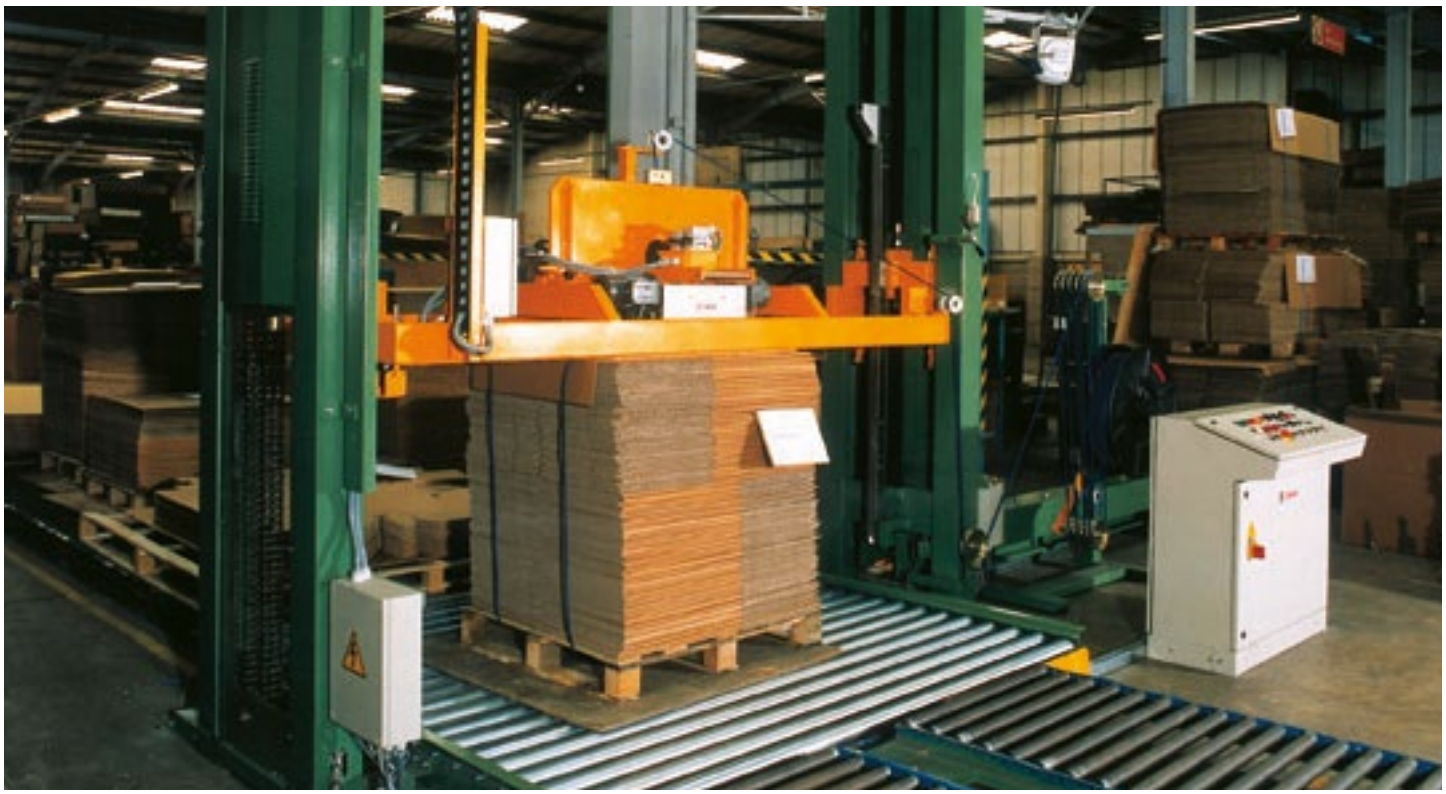
Polypropylene strapping

Lightweight and economical, Polypropylene strapping is ideal for preventing breakages in transit, while minimising additional package weight.



Made from extruded polypropylene homopolymer, Polypropylene banding strapping (PP) is more lightweight than its counterparts, making it the perfect choice for securing easy-to-carry parcels, boxes and lighter pallet loads, while minimising additional package weight.

It can be fitted by hand or via a polypropylene strapping machine, and the high elongation properties of PP strapping tape allows for contraction around packages as they settle, keeping them secure.

Available in a wide range of standard colours, our PP strapping can also be single colour custom printed for brand identity, usage or security purposes. You can choose from four standard ink colours: black, red, blue and green.

Applications include:

- cardboard boxes
- food
- newspaper bundles
- timber
- light and medium weight packages

Specification summary:

Width	9 - 32mm
Thickness	0.4 - 1.5mm
Quality	Hand grade to fully automatic
Elongation	14 - 20%

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UK manufactured
strapping products:
plastexstrapping.co.uk

Polypropylene strapping

Data sheet

Breaking strength:

The following is for example purposes only. Many factors can affect the result:

Factor	Variables
The type of package being strapped	Rigid / compressible Sharp / round edges Friction between items
The method of transportation	Internal / export Palletised / loose
The type of seal *	Plastic buckle / metal seal Friction / heatseal
Safety factor **	1.5 - 2.0 of weight load

* Refer to tool / manufacturer for seal efficiency

** How to calculate safety factor:

Safety factor = Seal efficiency ÷ Total load weight

As a rule of thumb a safety factor between 1.5 & 2.0 is desired.

Example:
Total load weight = 500 kg
4 straps each of 300 kg breakload = 1200 kg
Seal efficiency 75% (Friction weld) = 900 kg
Safety factor = 900 ÷ 500 = 1.8 (The result is between 1.5 and 2.0, so should be acceptable)

Due to the many parameters that can affect the result, each unitisation can require different amounts and breaking strength of strapping. The final specification is the responsibility of the applicator.

Colours:

Black
White
Blue
Green
Yellow
Orange
Pink
Red

More colours available upon request

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Data sheet

Technical and safety data:

Composition	Polypropylene Homopolymer (approx 97%) Chalk ($Ca\ CO^3$) (approx 2%) Colour Pigments (approx 1-2%)
Disposal	Controlled Thermo-destruction is recommended. Important note: Loops of strapping made by the end user, can be a dangerous trip hazard. Loops should always be cut or peeled at the weld, when removed from a package. Waste should be disposed of properly and not left on the floor.
Flammability	When Polypropylene is heated in air, melting will occur at 165 - 170°C and decomposition will commence at about 300°C with the release of volatile low molecular weight hydrocarbons. Self ignition occurs at about 380°C. Once alight, burning will continue with a flame even when the ignition source is removed. The main decomposition products are H^20 and CO^2. When burnt with reduced oxygen, carbon monoxide is also produced which is toxic. Like many organic materials wood, paper and other oil by-products, Polypropylene can also produce a considerable number of decomposition products normally in very low concentrations. These can include certain aldehydes and acrolein. The decomposition trace elements are irritant and lachrymatory. The irritation is a good warning of excessive exposure. In small quantities such as those developed in a strapping machine sealing head, the fumes should be extracted or dispersed into a large volume of air
Food contact applications	Polypropylene strapping manufactured by Plastic Extruders is made to approximately the following composition (varies slightly according to colour); Although no certification exists for strapping itself, all grades of virgin polypropylene used comply with current food contact legislation and in particular with EC Directive 90/128 and subsequent amendments 92/39, 93/9, 95/3, 96/11. Also to USFDA title 21 Part 177, 1520. Please note that our black PP strapping includes a recycled content of unknown origin. Although unlikely to be harmful these grades are not covered by the above food contact certification. Calcium carbonate is harmless when in contact with food and even if ingested.
Fume evolution	There is no evolution of fumes at ambient temperatures.
Handling and usage	Polypropylene strap does not present any unusual hazard in handling and is stable under normal handling conditions
Physical contact	Polypropylene strapping is not considered a skin irritant but, being fairly hard can have an abrasive effect on the skin.
Storage	Materials should be stored indoors in normal warehouse conditions, i.e. dry and at a temperature between 0 and 35°. Both the plastic and cardboard packaging materials are flammable, but no other exceptional health and safety hazards are applicable in normal storage conditions. It should be stored in a no smoking area, away from naked flames or sources of extreme heat. Unboxed coils should be stored away from windows or doorways where sunshine may enter. Pallets of these materials are supplied with the following pallet label. Storage at elevated temperatures will increase the amount of edgebow (curvature) that develops in the tape and the speed with which it develops.
Toxicity and reactiveness	Polypropylene is chemically unreactive and is generally regarded as being biologically inert. Polypropylene is frequently used in food packaging applications including blow moulded bottles and microwave trays. However, some colour pigments can be harmful so ingestion is not recommended.
UV light	PP strapping is particularly susceptible to UV degradation. Do not expose PP strapping to sunlight/daylight during storage or use unless it is correctly specified for UV resistance. For outdoor applications black has superior UV resistance to coloured strap. Coloured straps can be supplied with additional UV inhibitor.

The information provided is for guidance purposes only and no responsibility is accepted for results obtained.