

Foil packaging



Different alloys and gauges of foil are used for different packaging applications, with most alloys up to around a 3% mix of iron, silicon and manganese, with tiny amounts of copper occasionally added for extra strength. The thinnest foil used for wrapping chocolates may be only 6 microns, with household wrapping and cooking foil between 11 and 18 microns, lidding foil between about 30 and 40 microns and foil for foil trays generally between 40 and 90 microns.

Making foil containers

The aluminium coil delivered from the rolling mill will have been produced to exact specification of alloy, gauge, finish, and width. This coil, or reel, is then fed into the press for precision cutting and forming by tools with tolerances of less than one hundredth part of a millimetre. The finished containers are so light that they are air-blown from the press, before being stacked and packed.

Most alufoil containers such as takeaway and ready meal containers, all sorts of bakery containers, and catering trays, have folded or creased sides, and are known as standard containers.

Smoothwall containers, such as those used for chilled foods, as well as long-life ambient products such as jams and premium pet foods, are formed and drawn in a similar way to aluminium drinks cans.

Foil lids for yogurt pots and dairy tubs

Reels of foil are delivered to the packaging converter to exact alloy, gauge and width specification, with heat-sealing lacquer applied to one surface.

The reels are then printed to brand design in sophisticated, up to eight-colour process machines, using water-based inks, then dried, lacquered, and cut to shape using multi-headed tools, before delivery to the customer.

After filling the plastic dessert cups on automated lines, the lids are simply applied and sealed with a thermal process.

Chocolate wrapping foil

Reels of foil are delivered to the packaging converter for printing and slitting to the exact width required - anything from a large chocolate bar, down to individual chocolate width. Printed designs include those suitable for all sorts of novelty shapes such as Easter rabbits and eggs, and Christmas tree decorations, where foil's deadfold characteristic enables quite complex chocolate shapes to be covered accurately. The foil is often very thin - as little as 6 micron gauge - and the precision of the handling machinery is critical.

At the chocolate factory, the printed foil is fed from the parent reel, cut to length and laid on a conveyor bed. The moulded chocolate is dropped into the centre of the foil sheet, and folding arms wrap the item, before brushes smooth the foil into the contours. Chocolate bars will then have a paper wrapper applied, before the item is moved on for packing.



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Housefoil

Rolls of foil bought for cooking and wrapping foods in the home are generally from 11 to 14 microns thick, with the thinner gauges used for economy products. To prepare the foil for sale, large rolls of foil - weighing up to 300kg - are ordered to correct alloy, gauge and width, and fed through a re-wind machine.

The foil is led through rollers onto a cardboard core, and cut to length, before being packed into the dispensing box, sealed and coded for traceability.

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