Plastics

Rupert the Bear Bendy Toy

Natural rubber latex foam

Plastics

Rupert the Bear is the odd one out in this box, as he is the only example of a natural plastic. He is made of rubber which has had blowing agents added to it to create the foam effect. The rubber identification has mainly been made from the smell. This toy was probably made in the late 1960s.

Spectacle frames
Cellulose acetate

Plastics

Plastics

CA was frequently used for spectacle frames like this. It is tough and is said to have a more ‘natural feel’ than other plastics, which may make it attractive for objects which are handled a lot.

Plastics

Brush
Cellulose acetate

Plastics

The poor imitation tortoiseshell body of this brush is likely to be CA, with its deep gloss.

Plastics

Table lamp

Cellulose acetate (CA)

Plastics

This marbled lamp is likely to be CA. You can see clear sprue marks on the base, from the injection moulding. However, it could alternatively be an early form of polystyrene. The lamp was broken from poor handling, showing how brittle plastic can be.

Plastics

Rolls Viceroy electric shaver **Phenol formaldehyde**

Plastics

The body of this shaver is the typical dark tone of phenol formaldehyde. The flex is coated in rubber.

Plastics

Egg cup

Phenol formaldehyde

Plastics

Dull, dark colours like this are typical of phenol formaldehyde (popularly called Bakelite).

Plastics

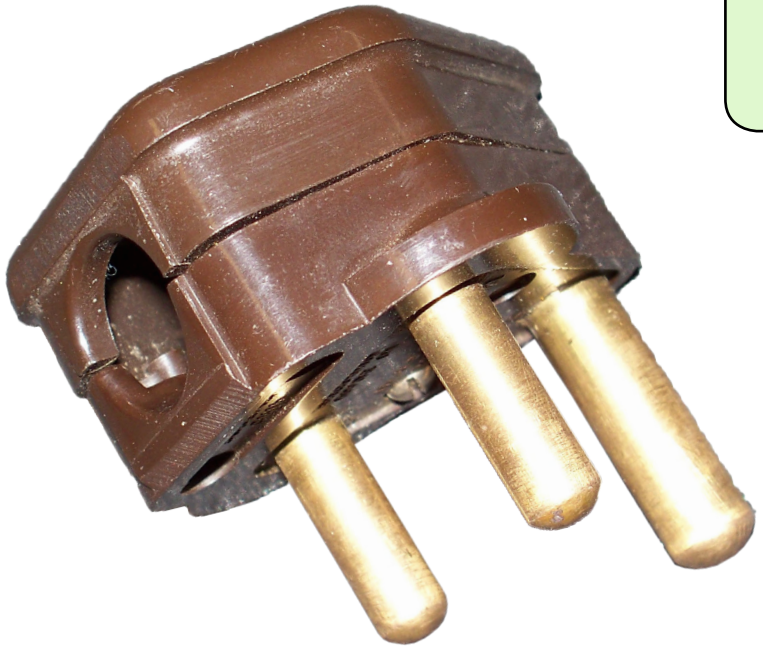
Ice cream spoon

Phenol formaldehyde

Plastics

Dull, dark colours like this are typical of phenol formaldehyde (popularly called Bakelite).

Plastics



Plug

Phenol formaldehyde

Plastics

This plug is the classic Bakelite brown.

Plastics

Siroma hair drier

Urea Formaldehyde (UF)

Plastics

This 1950s hair drier is the cream colour typical of UF. It is opaque, without being glossy, brittle and hard, and has no discernible smell. UF is always compression moulded, and was frequently used for housing electrical items around this period.

Plastics

Mottled multi-coloured funnel

Possibly Urea Formaldehyde (UF)

Plastics

UF can come with speckled effect like this, although this piece is unusually dark. The funnel shattered due to poor packing – showing how seemingly robust plastic objects can actually be quite fragile.

Plastics

Mottled multi-coloured darning mushroom
Possibly Urea Formaldehyde (UF)

Plastics

The brighter speckles on this piece indicate UF or possibly MF. However, the background colour is unusually dark for both of these plastics, and resembles phenol formaldehyde. It is possible that the different plastics were mixed, although this would be a rather elaborate production for a simple object like this. The top of the mushroom detaches for needle storage.

Salt and pepper pot

Urea formaldehyde (UF)

Plastics

Plastics

Although this salt and pepper pot does not carry the Beetleware trade mark, it is almost identical in colour and feel to the mustard pot which does. The colour is typical of UF from the mid-20th century.

Plastics

Mustard pot with lid

Urea formaldehyde and cellulose acetate

Plastics

The pot is clearly stamped “Beetleware” on the base, indicating it is made of UF. The clear base is most likely cellulose acetate.

Plastics

“Moon Lamp” night light
Urea formaldehyde and melamine formaldehyde

Plastics

The light green plastic of this lamp is definitely UF – compare it with the other UF items in the box. The shiny black part of the lamp looks like melamine formaldehyde. However, it is unusual to have both used at the same time within the one object, so the black part could also be UF.

Plastics

Chocolate box

Polyethylene (polythene)

Plastics

The rose on this chocolate box is made of polyethylene: it is opaque, semi-rigid and would scratch with a fingernail.
Its yellowing colour is most likely light damage.

Plastics

Dart box and darts
Phenol formaldehyde and polyethylene (polythene)

Plastics

The box is clearly phenol formaldehyde, being the typical dull brown often associated with Bakelite. The flights on the darts are opaque polyethylene (polythene).

Plastics

Metamec clock
Polymethyl methacrylate (PMMA or acrylic)

Plastics

The high gloss of this clock indicates that it is made of cast acrylic sheet (polymethyl methacrylate) – both the shiny black and the opaque white parts.

Plastics

Tupperware lid
Low density polyethylene (polythene)

Plastics

Ageing Tupperware like this lid sometimes feels slightly tacky, although this is not a normal indicator of degrading polyethylene. It could be that fats and grease from food held in the container have gradually coated the surface. Or it is more likely that the precise formulation of polyethylene used was less stable than later developments.

Plastics

Doll in green outfit
PVC?

Plastics

We don’t know what this doll is made of – showing just how tricky plastics can be. It was probably blow-moulded, and feels hard. It has no identifiable smell. It dates from around the 1960s. It could be PVC, or might be some other mix.

Plastics

Benecol bottle
Polyethylene (polythene)

Plastics

This bottle has a recycling mark on the base, clearly identifying it as PE. However, it is actually made of two or even three plastics: the shrink-wrapped plastic on the outside may be PVC, and it was probably bonded on using a hot melt glue containing polyethylene.

Plastics

Potato Bag
Mater-Bi

Mater-Bi is largely polylactide (PLA), a plastic made of corn starch. However, it also contains vegetable oil components and a small amount of petroleum based material. It is produced by Novamont, an Italian research company who claim it is “the first completely biodegradable and compostable bio-polymer ever invented” (see http://www.biobagusa.com/mater_bi.htm).

Plastics

Clear food carton **PVC**

Plastics

A packaging expert identified this carton as PVC, but really it demonstrates how difficult modern plastics can be to identify. As it is transparent, it could potentially be polycarbonate, polylactide, polyethylene terephthalate (PET), polymethyl methacrylate (acrylic) or polyurethane. Of these, PET or polylactide would be the most likely for a piece of everyday packaging like this.