

Finishes



“ tecni-form can achieve a multitude of colour finishes and textures

Specialist finishes that produce texture

tecni-form can photo-etch the inside of moulds, creating interesting and attractive textures on the surface of the plastic product. There is an almost unlimited range of textures available. The example demonstrates both leathergrain and pimpled textures.

Shot peening is a low cost alternative method of adding texture. The results are a random grain like texture. This method has the advantage that it can be repaired or modified easily.

Specialist Processes for Colour

There are two ways to colour a plastic component: the raw material can be tinted (including a speckle, where 2 or more colours are mixed); or a coloured coating can be applied to the component as part of the finishing process.

Painting Polyethylene Parts

Traditionally there has been no reliable way of painting polyethylene parts. tecni-form has been involved in the development of a system for solving this problem ... read more about painting polyethylene parts >>>

Metallic Finish

Paint is now available which makes plastic look extraordinarily like metal. By spraying with a coating containing a high percentage of metallic particles, tecni-form can create a surface that looks and even feels like metal. A lower cost metallic finish can be created at the moulding stage by using a metallic pigment blended with the powdered polymer.

Photo-Etching

“ A huge range of textures can be applied such as stone, leather-grained or regular dimpled patterns

Textures on rotational mouldings

By far the most common way of applying a surface texture to a rotomoulded plastic component used to be shot peening. Small pieces of cast steel shot strike the surface of the mould until it is completely covered with dents; the result on the plastic product is a series of tiny regular pimples, giving a uniform textured appearance overall.

Shot peening can be varied in depth but it does not provide much variety. This limits the range of applications for rotomoulded components, so tecni-form now frequently use photo-etching on aluminium moulds, a texturing process often seen in injection moulding. The sharp detail and uniformity give a very high quality appearance, and there are over 10,000 patterns to choose from.

Photo-Etching for rotationally moulded plastics

The photo-etching process is, in brief:

- 1 Prepare the surface of the aluminium tool
- 2 Apply an etch-resistant pattern to the tool
- 3 Immerse the tool in a chemical etchant
- 4 Remove the by-products from the tool surface
- 5 Apply a proprietary protective coating to the tool surface
- 6 Clean, degrease and coat the tool ready for moulding.

The process can be applied to all aluminium tools – either cast or machined from the solid.

Advantages of photo-etching rotationally moulded components

Although the photo-etching process is more expensive and time-consuming than shot peening, the process has some significant advantages:

- A huge range of textures can be applied such as stone, leather-grained or regular dimpled patterns
- Several different textures can be applied to a single tool
- The quality of the surface finish is higher than can be achieved by other processes
- A deeper texture can be achieved than all other processes with the exceptions of engraving and casting-in
- Textures can be applied to modified, repaired or old tools.

If you would like more information on using photo-etching on rotationally moulded plastic components, please see their Design Library. You will need to join tecni-form's newsletter to access this area of the site.

Painting polyethylene components

tecni-form have been involved in the development of a technique which is unique in the UK, which ensures you can get the precise finish you want on polyethylene parts

Painting polyethylene components

You can now have any of the following paint schemes on polyethylene and polypropylene rotomouldings:

- High gloss solid colour, pearlescent or metallic finish applied to smooth surfaced mouldings
- Textured satin finish applied to smooth surfaced mouldings
- Soft touch satin finish applied to smooth surfaced mouldings
- High gloss solid colour, pearlescent or metallic finish applied to textured mouldings.

Adding surface colour to polyethylene

Polyethylene is by far the most common material used in rotational moulding, but it has traditionally suffered from the disadvantage that it cannot be reliably painted. The same difficulty applied to polypropylene. Although these polymers can be coloured using a tinted raw material, good control of final appearance has been impossible, precluding their use in very many applications. Now tecni-form have solved the problem.

tecni-form's unique process

tecni-form have been involved in the development of a technique which is unique in the UK, which ensures you can get the precise finish you want on polyethylene parts. The substrate is treated after initial manufacture with specialist primers so that the component can be sprayed in the normal way, either by tecni-form or in your usual paint shop.

This process has proved particularly popular with the automotive industry and manufacturers of cleaning machines. It is now possible to have polyethylene components with shiny coloured, scratch-resistant surfaces that blend in with the rest of the completed product.

If you think that your current polyethylene mouldings could be improved by painting, it is worth noting that this can be done without the cost of removing textured surfaces from existing moulds.

If you would like more information on painting rotationally moulded plastic components, please see their Design Library. You will need to join their newsletter to access this area of the site.

Metallics

“tecni-form are unique among UK moulders in their ability to paint polyethylene and polypropylene

Metallic finishes for plastic components

You can now have a metallic surface appearance in any of the following ways:

- Metalized. Pieces are sprayed with a material containing a high percentage of metal
- Self-colour metallic. The raw polymer mix gives a metallic effect right through the moulding
- High gloss conventional pearlescent or metallic paint applied to smooth or textured mouldings.

Metalized

This is a strikingly effective finish in the right setting. A special paint is now available which contains so much metal that it makes plastic look extraordinarily like metal. It is even cold to the touch. You can have a variety of looks such as copper, bronze, brass, silver, gold or aluminium. The effect is dull, so chrome or polished silver or gold are not possible.

Self-colour

This is the term for an item which is coloured all the way through and does not need further surface finishing (other than deflashing). tecni-form are developing this method further: at present they can achieve a variety of metallic silvers and greys. it is a comparatively inexpensive process and offers the advantage that the product still looks metallic even after the surface has been scuffed in use.

Painted

If you want to match the rotomoulded piece exactly to your product or major assembly, metallic paint is the way to do it. tecni-form are unique among UK moulders in their ability to paint polyethylene and polypropylene. By applying their special process, tecni-form can leave the surface ready for you to spray, or they can spray it before delivery.