

## **Tubby Turtle Bath Tub**

### **Report:**

The *Tubby Turtle Bath Tub* was developed with the company, Millar's Ark Toys, in mind. When researching the company, it became apparent that their current ranges did not fully exploit their target market; already appealing to parents and children, they could readily extend their ranges to baby or child equipment.

With the company offering such a wide range, I chose to look specifically at their current, and rather limited, bath range. Having considered a variety of products such as bath thermometers, storage and bath mats, the bathtub seemed to have the most potential being a more commonly sold product.

In the development stage of *Tubby Turtle* a variety of issues were explored, for instance the company values, safety and appeal.

The advantages of using a baby bathtub includes: avoidance of taps and drainage holes; allowance for maximum space for the parent as it can be used anywhere in the house; better ergonomics preventing back problems for the parent/guardian; and a more reassuring size and position to support the baby.

Appealing to the parents and guardians of very young children, *Tubby Turtle* creates an early awareness of the company. A good quality product may also be incentive for them to return to the company again and again for more luxury items, such as their extensive range of toys.

Playing on parental concern over the welfare of their child, the bathtub includes a safety disc. The disc assists parents in estimating the temperature of the water ensuring that the water is not too hot or too cold. Using special colorants that become transparent to reveal the base colour when the critical temperature is exceeded, for instance magicolor type 35, parents are aware of the suitability of the temperature of the water by simply glancing at the colour of the safety disc. Magicolour type 35 is compatible with Acrylonitrile Butadiene Styrene (ABS) and complies with the current safety standards for food and toys.

Further addressing issues of safety, the bath is 8 inches high at the lowest point, with the recommended depth of water for an infant to be 5 inches, note that the extra 3 inches is to prevent spillage. The texture of the seat and base is none slip, and the safety pillar also prevents the baby from slipping into the water. No small parts are included in the product with the components being injection moulded preventing the risk of sharp edges.

The backrest serves to reassure the parents whilst making bathing easier as they won't need to support the baby. The open form of the bathtub also provides comfort for the parents who will be a main target market for this product.

Many existing bathtubs include a drainage plug that requires more design, manufacture and components. This issue was tackled by utilising the form so that the parent can easily pour the water out through the funnelled edge at the back of the bathtub.

Encouraging the longevity of the product, which is primarily made of ABS, *Tubby Turtle* includes a removable, shaped back support. It would be easier for parents of newborns and infants to use the back support which is easily and securely attached, whilst older children able to sit up alone may prefer to be able to splash around in the water without the back support. The tub can also be used as a water play area when the child eventually grows out of the bath. Maximising usage tackles ethical issues, which is a core company value. Additionally the product can be recycled wholly once just the safety plate and hanger is removed.

The aesthetics of the product are fitting to the brand: all of Ark Toys existing ranges are very literal to animal forms. The bathtub mimics attributes from a turtle's shell in its form, colours and pattern thus adopting a playful and recognisable identity for both parent and child. The bathtub is also none invasive with its appearance and will hang up to be put out of the way tidily.

Having considered the existing target market of the company, the product targets the niche market of middle to upper class parents who can afford what may be considered a luxury item. Though injection moulding is relatively low cost, the additional colorants and detail may increase the price unnecessarily to improve the aesthetics and add value to the product. Many of the products currently in the Ark Toy's range are also made through injection moulding.

Unfortunately, due to the resources available, I could not model up the bathtub. However, looking to existing bathtub dimensions and anthropometric data, I was able to more accurately communicate the product using Rhino 3D, returning to sketch work every once in a while. To illustrate the design effectively I produced a labelled exploded-view technical diagram and a rendered image presenting the product from several perspectives. To show the product within their current range I also inserted a rendered image to an Ark Toys catalogue page using Photoshop.

Ark Toys currently distribute their toys directly to the customers through their catalogue and also at the Spring and Autumn fairs in Birmingham. The *Tubby Turtle Bath Tub* would fit in with their ranges whilst expanding their product range, optimising the profile of Ark Toys.