

Vacuum Forming Acrylic Baths

The Manufacturing Process Explained & why cracks are not attributable to the manufacturer

Prior to moulding all acrylic baths start off as a flat sheet. This hard sheet is placed into an oven for about 25 minutes to soak up heat and soften.

The soft and pliable acrylic sheet is then placed over an aluminium tool. After the sheet has been clamped into place a high pressure vacuum is created underneath by a vacuum pump. This vacuum is approximately 29" per sq. ft. Due to the high pressures if there is a weakness in the sheet it will tear during the vacuum forming and result in a 'banger' (the noise made as air rushes into the vacuum as the sheet splits).

After the bath has been moulded and cooled it is a complete shell with no cracks. We know this because it has formed into the required shape without tearing ('banging'). The base of the bath and the radius are thin compared to the top rim as the sheet has been pulled and stretched into shape. The acrylic shell is removed from the aluminium tool and placed with other shells ready for the next stage of manufacturing.

All baths have to be reinforced with glass fibre polyester resin. This is to compensate for the acrylic becoming thinner as it flows into the base. If between the moulding process and spraying the acrylic shell becomes damaged (i.e. cracked) then the wet GRP resin during application would seep through onto the 'consumer side' of the bath. This would be noticeable upon the film been removed prior to fitting. The chemical reaction that takes place as the GRP is applied is exothermic and so would expand the crack allowing seepage to occur.

Due to the design of the factory production lines there is no point post spraying/ curing where the bath would be subject to 'impact'. There are wide open spaces and all the packing tables are padded to make the job 'easier' for the employee. After the bath has been trimmed, drilled and packed it is nested onto another bath (of the same model) and stacked in 10's, 15's or 20's onto a pallet.

Taking into account the manufacturing processes it is not possible to make a bath with a crack. Furthermore because we palletise the baths immediately Trojan is confident that impact damage will not have occurred on its' site.

The bath installed at the consumer's house has travelled from our works in Huddersfield to a distribution depot and (perhaps) then to a showroom before been transported to the consumer's house and installed. Many people have handled the bath before it is used.

The last person(s) to handle the bath prior to use are the plumbers/ installers.

At any point during this distribution chain (see above) the bath may have been damaged. It is because of the number of people involved that we, as manufacturers, cannot guarantee the bath against cracking.

Cracked baths have undoubtedly suffered an impact related incident. Apart from stress as a result of poor fitting there is no other reason why a bath would crack. Finding the person who is responsible for causing the (accidental) damage is not possible. Nor is it something Trojan would know or discover by looking at the bath. All that is known is that at some point post manufacture the bath has been either 'ill handled'.

Impact Damage Briefly Explained:

If there is no dent or markings on the acrylic surface then the damage will have happened "prior or during installation".

Impact damage 'prior or during installation' indicates that the initial damage has occurred on the underside of the bath. There will be no evidence of impact on the GRP. In most instances, although not all, the crack will be in a horse shoe/ half moon shape and the acrylic will look like it is peeling away from the rest of the bath and the GRP.

The length of time it takes for a crack to become noticeable depends on the severity of the initial impact and how often the bath is used. The hot and cold water cycles coupled with the weight of the water will over a period of time expand and develop the crack further.

ATTENTION!

REMOVE FILM PRIOR TO FITTING

Please note prior to fitting carefully remove all the packaging **AND FILM** from the bath and examine the bath for damage and suitability of colour match.

Check the panel fit and colour match prior to installation.

No claims for the above will be accepted once the bath is fitted.

IMPORTANT: PLEASE LEAVE THIS LABEL FOR THE END USER

Your Bath has been **proudly manufactured in the UK** to the highest standard to give you years of trouble free use, providing the bath has been installed correctly and the care instructions followed as stated below.

The acrylic bath is guaranteed by the manufacturer against defective materials or workmanship. This guarantee does **NOT** cover impact related damage.

FILLING

Always run some cold water into the bath before turning on the hot tap

CLEANING

The bath should be cleaned immediately after use whilst the water is draining and is still warm. Should the bath be cold before draining any residue in the water can harden on the sides and base of bath and will be harder to remove. Hard water locations can leave insoluble lime salts at and below the water line and also below leaking taps. If allowed to build up they are more difficult to remove. Please use hot soapy water for cleaning and wipe the bath dry.

CLEANERS

Gritty and abrasive cleaners must **NOT** be used. Should grime build up over months this can be removed by using a soft cloth and a car colour restoring polish or a metal polish. Any slight surface scratches can be removed by the same method.

CHEMICALS

Acrylic has good resistance properties to acids and alkalis, but organic solvents, such as paint strippers, peroxide etc., can cause damage to the bath surface and should not be allowed to contact the surface of the bath. If by accident this does happen, dilute with hot soapy water and wash away drying the surface

Burning cigarettes must never be allowed to contact the surface as damage will ensue.

In the unlikely event that the bath develops a fault please report the issue to the retailer from where it was purchased.

All complaints must be reported back through the purchase chain:
(retailer - distributor - manufacturer).



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