Ultraform® und Ultradur® in Grohe shower products

Case Study

Two BASF plastics in particular are contributing to the innovative shower products from GROHE, the leading name in high-quality fittings and sanitary systems. Ultraform® is part of GROHE's cool wall technology which ensures that handles never get too hot to touch, while Ultradur® retains the shower head's flexible nozzles. Opposing adhesion properties – poor affinity for limescale on the one hand, good compatibility with other polymers on the othe – are exploited in GROHE's new Relexa plus range of hand showers.

Ultraform® internal water duct
Instead of the water being in direct contact with the handle, it is channelled through the shower head via an internal duct moulded from POM. This new double wall construction insulates the handle from hot water, significantly reducing the large temperature variations which can cause the decorative chrome finish to crack due to the mechanical stress of repeated expansion and contraction. Another advantage is that the POM's non-polar surface shrugs off any hardness in the water, thus preventing the build-up of limescale.

Ultradur® and the SpeedClean anti-scale system
The shower head is covered with an array of fine, flexible nozzles made of silicone elastomer. Gentle brushing of the nozzles with the hand is sufficient to break off light deposits of limescale that may have formed. Ultradur® ensures that the nozzles remain firmly held in place despite frequent descaling. The nozzles are formed by injecting silicone elastomer onto a perforated circular insert moulded from Ultradur®, with which it forms an intimate bond.

Thanks mainly to their low thermal conductivity as well as the functional integration and design freedom they offer, thermoplastics continue to replace metal in many areas of the sanitary market. Ultraform® and Ultradur®, like all the other materials used, have worldwide approval for use in drinking water applications. GROHE's SpeedClean system is guaranteed for five years.