

Even when the water boils - hydrolysis resistant polyamides

Recently, BASF has added two new hydrolysis-resistant polyamides (PA 66) to its product range. These plastic grades are called Ultramid® A3WG6 HRX and A3WG7 HRX and are reinforced with 30% and 35% glass fibers, respectively. The products were developed for applications in the coolant circuit of vehicles. They are capable of passing the latest, more stringent long-term hydrolysis tests demanded by car manufacturers. Additionally, they also exhibit outstanding heat-ageing resistance in hot air. Sample quantities of these new Ultramid grades are now available. The products are dyed black and can be laser-marked.

Thanks to their property profile, these new plastics lend themselves for more than just radiator end caps and various connectors. In fact, the variant reinforced with 35% glass fibers, Ultramid A3WG7 HRX, can also be used to manufacture oil filter modules having integrated coolant pipes. Today, such components also need to be

resistant to hot water and glycol. Tests were conducted with all of the standard water-glycol mixtures.

BASF developers had a real close look at the weld line strength: the weld line of tanks and caps made of the new A3WG7 HRX grades is much stronger than that of commercially available reference plastics. Tests were carried out on welded containers that had been exposed on one side and on both sides to hot coolant at a temperature of 130°C [266°F]. The new Ultramid grades are considerably less prone to crack formation. This lower tendency to form cracks – a very advantageous aspect for components with weld lines – was also confirmed in the swelling test in pure glycol at high temperatures.

For additional information about the highperformance plastics belonging to the BASF's Ultramid® brand please contact us.



Information and images from BASF Press Release