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PRESS INFORMATION

Fakuma Press Release

Higher performance in water

The high hydrolysis stability Grivory HT "High Hydrolysis Resistance" is the latest supplement to the Grivory HT assortment from EMS-GRIVORY. This product line offers highest hydrolysis resistance at elevated temperatures – but this is not the only positive point.

In automotive cooling systems, sanitary applications and various other applications in the field of industry and consumer goods, plastics are required, which have long-term resistance to hot water, steam or cooling agents. This means that excellent hydrolysis resistance is a basic prerequisite for use in these challenging applications. With Grivory HT "High Hydrolysis Resistance", EMS-GRIVORY has launched a product line which opens up new possibilities for applications involving permanent contact with water. Grivory HT "High Hydrolysis Resistance" is characterised by highest hydrolysis even at elevated temperatures. The Grivory HT1VA grade for example, ("A" stands for Aqua, Latin for water) has 30% higher retained strength values after 12,000 hours in water at 95°C, than a traditional PPA.

Resistance and efficiency

Grivory HT "High Hydrolysis Resistance" is available in two versions: for use in automotive construction applications as well as applications with direct contact with food and drinking water. In automotive construction, this product line is particularly suited for components in engine cooling systems which must withstand the most extreme conditions.

Mann+Hummel, for example, manufactures a cool-water valve for Hyundai-KIA-U-Motors made of Grivory HT1VA-35 HYS. For use in these applications, along with the excellent hydrolysis resistance at elevated temperatures, excellent resistance against cooling agents and high dimensional stability was also required. Grivory HT1VA-35 HYS satisfies all these requirements. A further reason for the choice of Grivory HT1VA-35 HYS is its optimised demoulding capabilities. This means that the material enables use of complex mould geometry and undercuts improving the efficiency of the injection moulding process.

Interesting product for electro-mobility

Grivory HT "High Hydrolysis Resistance" is suitable for both vehicles with classic internal combustion engines as well as those with electro motors, where thermal management is particularly important and liquid cooling systems using water are also implemented. The combination with electrical conductor tracks and electrical components is possible without problems because the available "electro-friendly" stabilisation prevents problems with salt efflorescence and the corrosion it causes under warm and moist conditions.

Hot water and steam

With the "FWA" products approved for use in direct contact with foodstuffs and drinking water, Grivory HT "High Hydrolysis Resistance" can be used in a variety of applications in the sector industry and consumer goods. Two grades with different amounts of reinforcement are available for this: Grivory HT1VA-4 FWA (40 weight-percent glass fibers) and Grivory HT1VA-5 FWA (50 weight-percent glass fibers). In comparison to conventional Grivory HT1V-FWA grades approved for use in direct contact with foodstuffs and drinking water, these two products provide significantly higher toughness and reliability and expand the utilisation limits with regard to temperature and life expectancy.

The products have already been introduced successfully into the market. A leading coffee machine manufacturer makes liquid feed connectors and a distribution block for a fully automatic coffee machine out of Grivory HT1VA-4 FWA. These components are exposed to hot water and steam. In this application as well, Grivory HT "High Hydrolysis Resistance" is convincing with an outstanding hydrolysis resistance and its food and drinking water approvals. The very high weld-line fatigue strength of the glass-fibre reinforced product was another important argument, for the manufacturer to convert from the previously used PPS to EMS material.

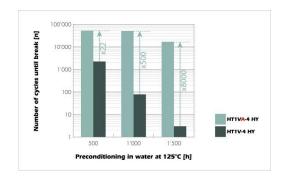
Whether in automotive manufacture or in a coffee machine – Grivory HT "High Hydrolysis Resistance" provides higher performance in water!

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Cooling water valve from Mann+Hummel made of Grivory HT1VA-35 HYS.



Grivory HT "High Hydrolysis Resistance" provides a significantly improved weld-line fatigue strength.



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