

Genestar™



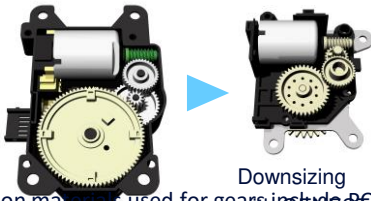
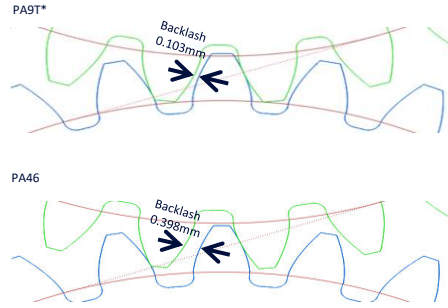
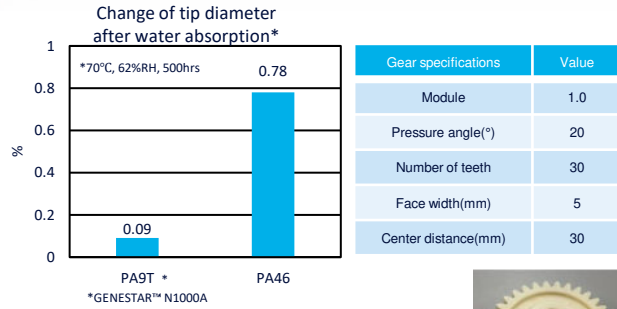
Low Noise, High Temperature Actuator Applications

GENESTAR™ is a brand name of heat resistant polyamide developed by Kuraray.

GENESTAR™ PA9T series in that brand is a well-balanced long-chain polyphthalamide (PPA) that combines low water absorption and high mechanical properties over a broad temperature range.

Cars keep adding more functionality and people are requesting more comfort in their cars. Due to the demand for more functions and features, the passenger and engine/battery compartment is expected to be hotter. More actuators will be used to improve the comfort of the passengers and the performance of the vehicle. The presence of more actuators will mean more space taken up and more noise and vibrations. The smart way is to reduce the size of actuators so that more space can be allowed for passengers and a more dimensionally stable material will reduce the noise of the actuators. However, there are limitations of current materials. These limitations can be overcome with GENESTAR™.

Gears made from high water absorption materials such as PA46 result in unstable dimensions due to changes in humidity which cause added noise and vibration of the actuator.

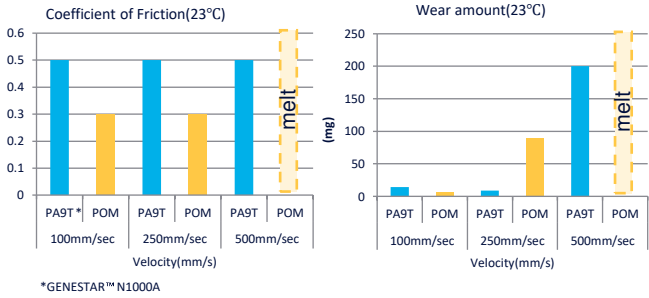


Downsizing with GENESTAR™

Some common materials used for gears inside cars are POM, PA6, PA46 and PA66. However, due to the lack of thermal properties for POM, the teeth of the gears made of POM will melt at high temperature and high rotational speed.

With GENESTAR™, together with the support of CAE, it is possible to find a solution for downsizing of gears to achieve lighter weight, lower noise and sustainability without the sacrifice of comfort in the cars.

If the information in this article is of interest to you, please find the contact details below to get in touch with us.



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