



## Consideration of Weight Reduction vs PPS to Reduce Cost

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.

Most of the time, cost is the main gatekeeper for a project. Therefore, the following are factors that need to be considered for a particular project (but not limited to):

- Mold steel (affected by choice of material)
- Cycle time (long cycle time affects productivity)
- Specific gravity (some materials can be cheap, but the final part cost becomes more expensive as they weigh much more)

GENESTAR™ offers the following advantages among others.

- Possibility of light weighting due to lower specific gravity, resulting in more parts produced.

	PA9T-GF35*	PPS-GF40
Specific gravity(g/cm <sup>3</sup> )	1.40	1.65
Volume of 1part(cm <sup>3</sup> )	10	10
Weight of 1 part(g)	14.0	16.5
Number of parts / 25kg bag	1785	1515
Percentage more with PA9T(%)	-	18

\*GENESTAR™ G1350A

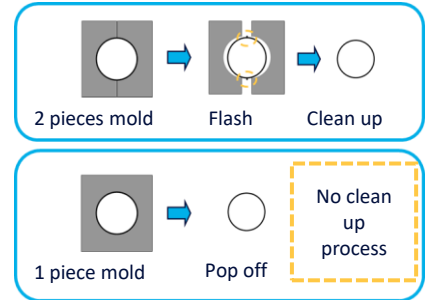
	PA9T-GF35*	PPS-GF40
Vent depth (0.015mm)		
Flash length(μm)	61	112

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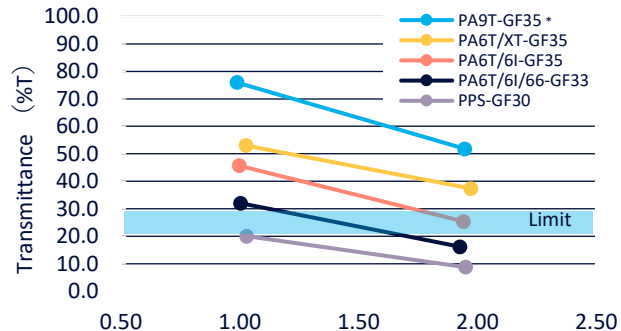
Flash with PPS



No Flash with PA9T



- Possibility of laser welding while maintaining high strength



- Reduced the mold maintenance frequency due to lower outgas, which increases productivity and lowers cost of maintenance due to high thermal stability of PA9T

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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