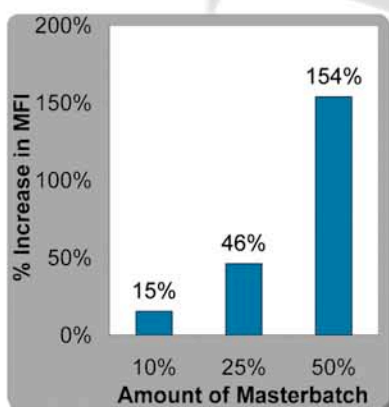


Hybrid Plastics®

Superior Technology for Superior Products

Polyetherimide POSS® Flow Masterbatch

POSS® Flow masterbatches have shown tremendous success in reducing the melt viscosity of a variety of high temperature, difficult to process, thermoplastics without affecting mechanical properties. Hybrid Plastics offers such a solution for polyetherimide (PEI). PEI POSS® Flow is a pellet masterbatch incorporating POSS® Flow in a PEI carrier that can be used directly in your process or manufacturing stream. For injection molding applications, users will benefit from decreased molding pressures and increased flow for filling intricate and thin-walled parts. This leads to faster cycle times and less scrap. For extrusion applications, POSS® Flow will dramatically decrease screw torque, allowing for an increase in extrusion rate.



Increasing Melt Flow Index with POSS® Flow

PRODUCT ENHANCEMENTS

Improved surface replication
Improved gloss
Thinner wall parts
Less material usage

PROCESSING ENHANCEMENTS

Shorter cycle time
Lower pressures
Lower process temperatures

PROPERTY RETENTION

	Tensile Modulus	Yield Strength	Elongation at Break
Ultem 1000	100%	100%	100%
10% PEI POSS® Flow	100%	100%	100%
25% PEI POSS® Flow	98%	97%	100%
50% PEI POSS® Flow	98%	85%	75%

Typical addition levels are 10 to 25%. Adding 25% to Ultem 1000 increases MFI by 50% with negligible impact on mechanical properties. At loading levels of less than 25%, there is no appreciable decrease in mechanical properties, including modulus, yield strength, HDT and elongation to break. PEI POSS® Flow is especially effective in filled systems. POSS® coats and interacts with most fillers (metal oxide, boron nitride, titanium carbide, etc.), improving dispersion and significantly decreasing melt viscosity.

PHYSICAL PROPERTIES

Product name: PEI POSS® Flow
Product number: EI6U58.01
Color: Opaque, light brown color
Density: 1.27 g/cm³
Melt flow index: approx. 130 g/10 min (380 °C / 5 kg)
Usage level: 10 to 50 wt-%



WARRANTY

The information contained herein is believed to be accurate and reliable. However, the user is responsible for determining the suitability and use of the final formulations/products. Hybrid Plastics warrants that its products will meet specifications, but not merchantability or fitness for use.

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