

Hybrid Plastics®

Superior Technology for Superior Products

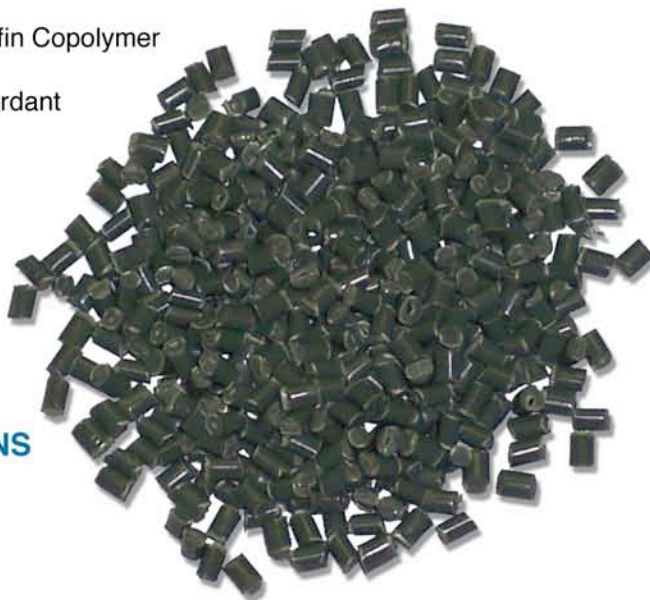
Nanoreinforced® Cyclic Olefin Copolymers

The exceptional heat distortion temperature and low density of cyclic olefin copolymers (COC) makes them excellent materials for high temperature applications where low weight is desired. Hybrid Plastics® offers POSS®-modified COC plastics that are tough, weather resistant and easily processed. These materials do not use fillers. They exhibit some of the highest heat distortion temperatures at the lowest densities available on the market today. Other modifications are available, so please inquire if you need a low density, high temperature material for your application.

PHYSICAL PROPERTIES

Product name	Nanoreinforced® Cyclic Olefin Copolymer
Product number:	CO6U50.01
Description:	Impact modified, UV stabilized
Color:	Dark green
Density:	1.00 g/cm ³
Shrinkage:	0.4 to 0.7%
Flex modulus @ 40 °C:	2.4 GPa
Flex modulus @ 130 °C:	1.7 GPa
Glass Transition:	155 °C
Elongation at break:	13%
Flammability @ 3.2mm:	HB

Product name	Nanoreinforced® Cyclic Olefin Copolymer
Product number:	CO6U50.02
Description:	Impact modified, flame retardant
Color:	Dark green
Density:	1.10 g/cm ³
Shrinkage:	0.4 to 0.7%
Tensile modulus:	1.25 GPa
Flex modulus @ 40 °C:	2.7 GPa
Flex modulus @ 130 °C:	1.7 GPa
Glass Transition:	155 °C
Elongation at break:	6%
Flammability @ 3.2mm:	V-2



RECOMMENDED PROCESSING CONDITIONS

Rear barrel temperature:	240 – 270 °C
Middle barrel temperature:	250 – 300 °C
Front barrel temperature:	260 – 310 °C
Nozzle temperature:	250 – 310 °C
Mold temperature:	90 – 115 °C

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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