

# Noncircular Cross-Sectional Glass Fiber (Chopped Strands)

Noncircular cross-sectional glass fiber is a high performance glass developed through proprietary technology. Compared to the circular cross section of regular fiber, these fibers have cross sections that are cocoon-shaped (HIS) and flat-shaped (FF). With these noncircular cross sections, they display numerous outstanding characteristics when used for injection molding.

Circular cross-sectional fiber



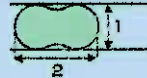
Flat ratio = 1.1



Cocoon-shaped (HIS) fiber



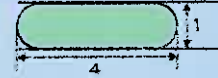
Flat ratio = 1.2



Flat-shaped (FF) fiber



Flat ratio = 1.4



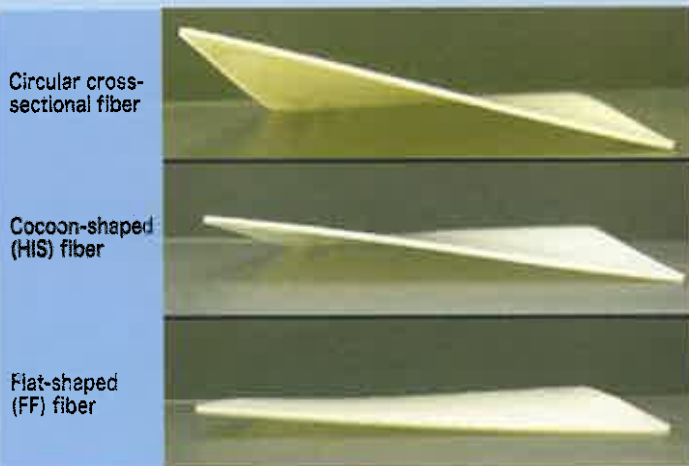
|                    |                                |                                                                                                                                            |
|--------------------|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Characteristic (1) | <b>High Flow</b>               | Has outstanding fluidity, ideal for complex or thin-wall molds. High content of glass fiber is possible.                                   |
| Characteristic (2) | <b>High Strength</b>           | Improved impact resistance due to the fact that the fibers remain in the molded product longer                                             |
| Characteristic (3) | <b>Impact Resistance</b>       | Improved impact resistance due to the fact that it easily absorbs energy                                                                   |
| Characteristic (4) | <b>Fine Surface Smoothness</b> | Molded products with highly smooth surfaces are possible since the the glass fibers do not rise above the surface.                         |
| Characteristic (5) | <b>Dimensional Stability</b>   | Low anisotropic shrinkage ratio of molded products which has an outstanding effect on reducing warping and twisting of the molded product. |

## [Product name]

- **Cocoon-shaped (HIS) chopped strands : CSH**  
CSH 3PA-850, CSH 3PA-860
- **Flat-shaped (FF) chopped strands : CSG**  
CSG 3PA-820, CSG 3PA-830

## [Applications]

Automobile parts, electronic equipment components



Difference in the level of warping in compound panels that use deformed cross-sectional glass fiber. GF content 40wt% (Resin PBT)