



Chassis / Hardware

Hybrid Control Arm with Integral Ball Joint

OEM/Vehicle

Fiat Chrysler Automobiles

2019 Ram 1500

System Supplier

Iljin

Material Processor

Iljin

Material Supplier

BASF

Resin

Ultradid B3WG10 PA6 GF50

Tooling/Equipment Supplier

Yooil Tech



This is the first usage of engineered plastic in the structure of a control arm for a high-volume production, light duty full size truck. The assembly process is simplified by integrating the ball joint which is formed during the plastic injection molding process. The result is a significantly lower and more stable torque as compared to conventional ball joint manufacturing. Control arms have previously been produced utilizing stamped/welded steel, cast iron, cast aluminum, forged aluminum and stamped/welded aluminum. Weight is reduced by 13% resulting in a higher MPG rating.