

# Chassis & Hardware



## Electric Power-Steering Flexible Coupling

### *OEM/Vehicle*

**2010MY Fiat S.p.A.: Fiat® 500  
Compact Car**

### *System Supplier*

**Nexteer Automotive**

### *Material Processor*

**Forteq**

### *Material Supplier*

**DSM Engineering Plastics**

### *Resin*

**Stanyl® TW241F10 50%-GR PA 4/6**



This flexible plastic coupling for the vehicle's electric power steering replaced a similar stainless-steel coupling with broached splines and grease. The part features ribs that connect and transfer torque from one rotating shaft to another, which in turn strokes axially and stretches and compresses the coupling. The fully compliant, constant-velocity joint eliminates torsional lash, the need for grease, and all sliding interfaces at a cost savings, while reducing audible cabin noise and improving steering "feel." The system replaces traditional hydraulic systems, reducing weight 17%, cost 50%, increasing fuel economy by 4%, and improving system performance and customer satisfaction.