

## Technical Datasheet N109

### 1) Product Description:

N109 is a semi-crystalline acetal copolymer resin produced by gas phase polymerization. N109 resin can be widely accepted as the replacement of thermosets, aluminum and zinc die-casts or other metals.

### 2) Applications:

Automotive: Water valve parts, radiator drain cock, carburetor float, exhaust gas valve, diaphragm valve, door lock, winker switch, wiper gear and pivot bearing, speedometer gear, window glass bottom channel, safety belt, retractor parts, door handle, lumbar support handle, sun visor bracket, collapsible room mirror stay, fender mirror body, water pump nozzle

Electrical and Electronic: Switch, coil bobbin, micrometer base, tuner parts, control switch parts, dial mechanism, cassette tape reel, power transmission gear, shaft gearing, bracket, fan motor housing.

Industrial Parts and Others: Spring, bearing, spray guns, power cylinder, watch gear, alarm clock base, hot water pot housing, gear housing, table top chain runner, zipper.

### Typical data:

| Property                                    | Test method | Unit     | value |
|---|-------------|----------|-------|
| Specific Gravity                            | ASTM D792   | g/cc     | 1.41  |
| Melt Index of Compound                      | ASTM D1238  | g/10 min | 9.0   |
| Tensile Strength at Break                   | ASTM D638   | MPa      | 61.0  |
| Elongation at Break                         | ASTM D638   | %        | 65    |
| Flexural Strength                           | ASTM D790   | MPa      | 89.0  |
| Flexural Modulus                            | ASTM D790   | GPa      | 2.55  |
| Izod Impact, Notched                        | ASTM D256   | J/cm     | 0.700 |
| Deflection Temperature at 0.46 MPa (66 psi) | ASTM D648   | °C       | 160   |
| Deflection Temperature at 1.8 MPa (264 psi) | ASTM D648   | °C       | 110   |

\* Typical values not to be construed as specifications.