

Acetal Properties

☐ Delrin[®] Homopolymer

- ✓ Tensile Strength – 11,100 psi
- ✓ Tensile Modulus – 450,000 psi
- ✓ Flexural Strength – 11,500 psi
- ✓ Flexural Modulus – 420,000 psi
- ✓ Elongation – 25%
- ✓ Impact Strength – 1.5 ft-lbs/in
- ✓ **Kilocycles to failure – 20,000*
- ✓ **Creep resistance @ 1000hrs – 1.25% strain
- ✓ Inherent centerline porosity
- ✓ ASTM D6100-11 / S-POM0111

☐ Copolymer

- ✓ Tensile Strength – 8,800 psi
- ✓ Tensile Modulus – 380,000 psi
- ✓ Flexural Strength – 11,000 psi
- ✓ Flexural Modulus – 360,000 psi
- ✓ Elongation – 25%
- ✓ Impact Strength – 1 ft-lbs/in
- ✓ **Kilocycles to failure – 15*
- ✓ **Creep resistance @ 1000hrs – 1.75% strain
- ✓ No inherent centerline porosity
- ✓ ASTM D6100-11 / S-POM0211

Beware: A ***copolymer*** Acetal is not the same as a Delrin[®] ***homopolymer*** Acetal!

*At 4750 psi – ASTM D671 Flex

**Data supplied by DuPont



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Advantages of Delrin[®] *Homopolymer* Acetal

- Superior physical properties compared to Copolymer Acetal.
- Higher crystallinity.
- Better fatigue endurance.
- Better creep resistance.
- Better impact resistance, especially at low temperatures.
- Domestic production provides consistent resin from batch to batch, shape to shape and part to part.

Shaping the World of Plastics



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