Delrin® 511CPE

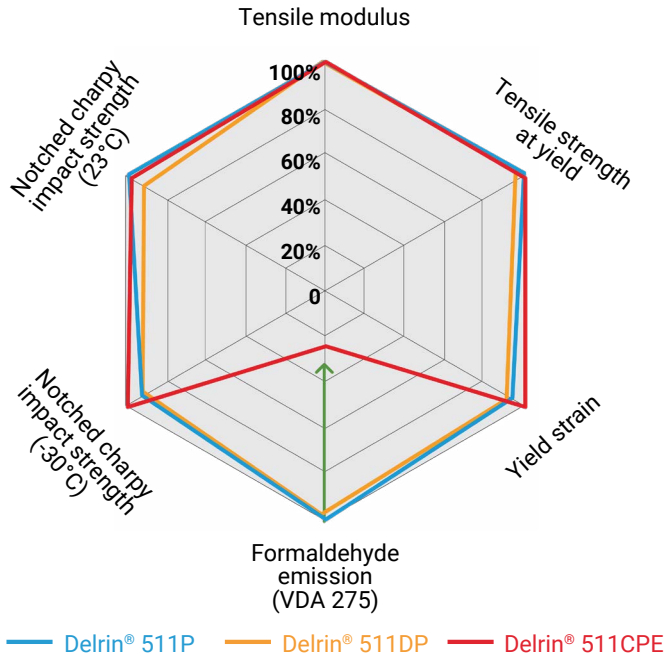
Combining the enhanced crystallization technology of the Delrin® 511 series for faster cycle times, excellent creep and fatigue resistance, and dimensional stability with state-of-the-art low-emission technology

General information

Delrin® 511CPE delivers the superior performance our customers expect from our Delrin® 511 series with:

- Dimensional stability
- Tensile modulus (stiff without the use of fibers)
- Impact strength (including low temperatures)
- Creep resistance
- Fatigue resistance
- 20% less mold deposit with 511CPE than with 511P

Without compromising performance, Delrin® 511CPE adds low emission capabilities (below 2 ppm due to VDA 275).



Properties overview

Properties	Unit	Test method	511P NC010 (reference)	511DP NC010 (reference)	511CPE NC010 (low-E)
Melt mass-flow rate (MFR 190°C, 2.16kg)	g/10min	ISO 1133	15	14	14
Mold shrinkage (parallel/normal)	%	ISO 294-4	1.8 / 1.7	1.9 / 1.8	1.8 / 1.8
Density	g/cm³	ISO 1183	1.42	1.42	1.42
Melting temperature, 10°C/min	°C	ISO 11357-1/-3	178	178	178
Notched charpy at 23°C	kJ/m²	ISO 179/1eA	7	6.5	7
Notched charpy at -30°C	kJ/m²	ISO 179/1eA	6	6	6.5
Tensile strength at yield	MPa	ISO 527-1/-2	75	75	77
Yield strain	%	ISO 527-1/-2	12	12	13
Nominal strain at break	%	ISO 527-1/-2	25	25	25
Tensile modulus	MPa	ISO 527-1/-2	3400	3400	3400
Flexural strength at 3.5% strain	MPa	ISO 178	88	89	89
Flexural modulus	MPa	ISO 178	3200	3200	3200

Delrin® 511CPE Homopolymer Outperforms Both Medium and High Molecular Weight Acetal Copolymers

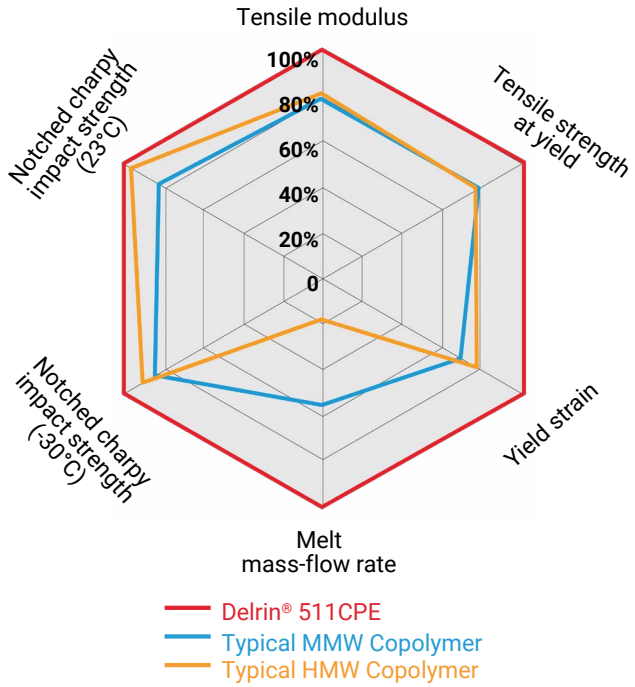
Delrin® 511CPE homopolymer delivers superior performance compared to competitive medium molecular weight (MW) copolymers, as well as competitive high MW copolymers:

- 20% higher tensile properties
- Impact resistance (15% higher vs. MMW) over a large temperature range
- Significantly better flow which permits:
  - Better fill of thinner-wall cavities
  - More effective design of thin-wall parts

Plus, Delrin® 511CPE offers low VOC emissions (below 2 ppm due to VDA 275).

In addition to the ability to make durable parts at potentially higher production rates, Delrin offers the support you need. Consistent quality; supply stability; and design, technical and processing support help ensure that production of your high-quality part delivers on its promise.

When all of these benefits are taken into account, designing with Delrin in mind will lead to lower cost per part.



To learn more, contact your Delrin representative or visit Delrin.com.

Delrin® is an industry-leading premium industrial polymer business. Grounded in strong innovation, Delrin is a category creator with a longstanding reputation for quality, reliability, supply and product performance. The iconic Delrin brand, coupled with proprietary technology and deep application expertise make us a leader in the high-end engineering polymer market. Delrin has exciting growth prospects from exposure to automation, actuation, healthcare, mobility and consumer applications.

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