

DuPont™ Delrin® 300CPE

Combining the industry standard properties of a Delrin® 300CP with state-of-the-art low emission technology

General Information

DuPont™ Delrin® 300CPE is a new medium-high viscosity low-emission grade in its acetal resin family, part of the low-emission CPE group.

Excellent Balance of Properties

- Tensile modulus (stiff without the use of fibers)
- Yield Strength
- Impact Strength (including low temperatures)
- Creep resistance
- Fatigue resistance

Without compromising performance, the new DuPont™ Delrin® 300CPE adds:

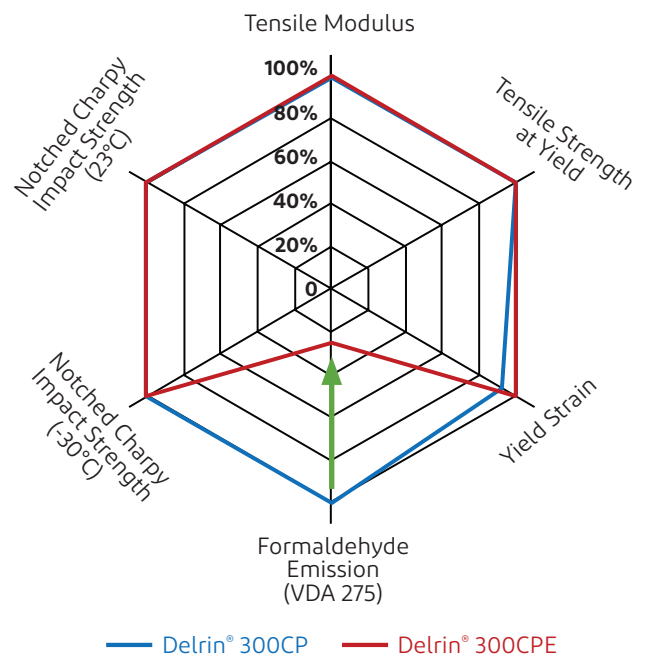
- **Low emission (below 2 ppm in VDA 275)**

Customer Benefits

- More design flexibility and freedom
- Consistent performance over wide temperature range
- Lower part cost
- No need for additional processing equipment (dryer)

Properties Overview

Properties	Unit	Test method	300CP NC010 (reference)	300CPE NC010 (low-VOC)
Melt mass-flow rate (MFR 190°C, 2.16kg)	g/10min	ISO 1133	7	7
Mold shrinkage (parallel / normal)	%	ISO 294-4	2.1 / 1.8	2.1 / 1.8
Density	g/cm ³	ISO 1183	1.42	1.42
Melting temperature, 10°C/min	°C	ISO 11357-1/-3	178	178
Notched Charpy at 23°C	kJ/m ²	ISO 179/1eA	10.5	10.5
Notched Charpy at -30°C	kJ/m ²	ISO 179/1eA	10	10
Tensile strength at yield	MPa	ISO 527-1/-2	71	71
Yield strain	%	ISO 527-1/-2	23	25
Nominal strain at break	%	ISO 527-1/-2	40	40
Tensile modulus	MPa	ISO 527-1/-2	3100	3100



DuPont™ Delrin® 300CPE

Outperforms High Molecular Weight Acetal Copolymers

DuPont™ Delrin® 300CPE delivers superior performance compared to competitive high molecular weight (HMW) copolymers :

Performance Advantages

- Higher tensile properties (>10% vs. HMW)
- Impact resistance (45% higher vs. HMW) over a large temperature range
- Significantly better flow, which permits:
 - better fill of thinner-wall cavities
 - more effective design of thin-wall parts
- Superior fatigue resistance
- Higher heat deflection temperature
- Retention of all the other typical properties of Delrin®: low wear and friction, resiliency, chemical and solvent resistance, low-temperature toughness and more

Plus, Delrin® 300CPE offers low VOC emissions (below 2 ppm in VDA 275).

Customer Benefits

- Greater design flexibility to use lower wall thicknesses through easier tool filling
- Ability to make durable parts at possibly higher production rates (faster molding cycle time)
- Greater safety factor in impact resistance
- Higher part performance and reliability
- Consistent part performance over wide operating temperature range

When all these benefits are taken into account, designing with Delrin® 300CPE will lead to lower cost per part.

DuPont™ Delrin® design, technical, and processing support to ensure production of a high quality part that delivers on its promise.

Potential applications

A wide range of potential applications including:

- **Automotive components:** fasteners, seatbelt components, levers, brackets, switches, gears
- **Sporting goods:** buckles, latches, surface parts
- **Window hardware:** clips, housings
- **Irrigation components:** automatic sprinklers, commercial irrigation systems

Visit us at: www.delrin.dupont.com

The information set forth herein is furnished free of charge, is based on technical data that DuPont believes to be reliable, and represents typical values that fall within the normal range of properties. This information relates only to the specific material designated and may not be valid for such material used in combination with other materials or in other processes. It is intended for use by persons having technical skill, at their own discretion and risk. This information should not be used to establish specification limits nor used alone as the basis of design. Handling precaution information is given with the understanding that those using it will satisfy themselves that their particular conditions of use present no health or safety hazards and comply with applicable law. Since conditions of product use and disposal are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information. As with any product, evaluation under end-use conditions prior to specification is essential. Nothing herein is to be taken as a license to operate or a recommendation to infringe on patents.

CAUTION: Do not use DuPont materials in medical applications involving implantation in the human body or contact with internal body fluids or tissues unless the material has been provided from DuPont under a written contract that is consistent with the DuPont policy regarding medical applications and expressly acknowledges the contemplated use. For further information, please contact your DuPont representative.

DuPont's sole warranty is that our products will meet our standard sales specifications in effect at the time of shipment. Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted. TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, DUPONT SPECIFICALLY DISCLAIMS ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY, OR NON-INFRINGEMENT. DUPONT DISCLAIMS LIABILITY FOR ANY SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES.

DuPont™, the DuPont Oval Logo, and all trademarks and service marks denoted with ™, SM or ® are owned by affiliates of DuPont de Nemours, Inc. unless otherwise noted. © 2020 DuPont. All rights reserved.

Form No. 001-20339-AVI0320



Properties

