

# TECHNICAL DATA SHEET

## Acetron

### ACETRON® GP ACETAL (POM-C) FDA Approved Grade

Acetron® GP is Quadrant's general purpose copolymer acetal and is the only porosity-free acetal product available today. Investments in process technology by Quadrant now provide the performance and machinability of acetal without center core porosity. Quadrant's in-line photometric quality procedure assures every plate and rod is porosity-free as measured by Quadrant's dye penetrant test, making it the preferred acetal for food contact and medical applications. Acetron® GP natural is FDA, USDA, NSF, Canada AG and 3A-Dairy compliant.

### Acetron® LSG (POM-C)

Acetron LSG (POM-C) stock shapes are produced from selected batches of polyacetal copolymer resin. This engineering plastic combines good mechanical strength, stiffness, impact strength, chemical resistance, dimensional stability and friction and wear properties with an excellent machinability. The compositions of the resins used for the production of the Acetron LSG stock shapes comply with the regulations that apply in the Member States of the European Union (Directive 2002/72/EC, as amended) and in the United States of America (FDA) for plastic materials and articles intended to come into contact with food. Acetron LSG stock shapes have also been successfully type tested for their compliance with ISO 10993-1 guideline requirements for Biocompatibility Testing of Materials, and they come with full traceability from resin to stock shape. These features, added to the availability of different colors (natural / black / yellow / red / blue / green / brown) which allow for easy differentiation between similar parts, make Acetron LSG stock shapes very suitable for applications in the medical, pharmaceutical and biotechnology markets.

### Acetron® MD (POM-C)

This copolymer acetal grade, containing a metal detectable additive, has been specifically tailored for use in the food processing and packaging industries where it can easily be traced by the conventional metal detection systems installed to detect contamination of the foodstuffs (results may vary depending on the sensitivity of the metal detection system used). Acetron MD presents good mechanical strength, stiffness and impact strength, and it also features a food contact compliant composition.

#### Benefits

- Porosity free
- High mechanical strength and rigidity
- Machinability
- Resistance to chemicals
- Low moisture absorption
- Wear and abrasion resistance
- Natural Lubricity

#### Applications

- Pump and valve components
- Close tolerance precision parts
- Thin wall parts
- Electronic components
- Gears
- Bearings
- Bushings
- Rollers

#### SHAPES AVAILABLE



#### SEE NEXT PAGE FOR ADDITIONAL INFORMATION

NOTE: The information contained herein are typical values intended for reference and comparison purposes only. They should NOT be used as a basis for design specifications or quality control. Contact us for manufacturers' complete material property datasheets. All values at 73°F (23°C) unless otherwise noted.

Acetron is a registered trademark of Quadrant EPP

## TYPICAL PROPERTIES of Acetron GP®

PHYSICAL PROPERTIES	UNITS	ASTM	RESULTS
Density	lb/in <sup>3</sup>	D792	0.05
Water Absorption, 24 hrs	%	D570	0.2
MECHANICAL PROPERTIES	UNITS	ASTM	RESULTS
Tensile Strength @ yield	psi	D638	10
Tensile Modulus	psi	D638	9500
Tensile Elongation @Break	%	D638	30
Flexural Strength	psi	D790	12
Flexural Modulus	psi	D790	400
Compressive Strength	psi	D695	15000
Compressive Modulus	psi	D695	400
Hardness, Rockwell R		D785	120
IZOD Impact Strength Notched	ft-lb/in	D256	1
THERMAL PROPERTIES	UNITS	ASTM	RESULTS
Coefficient of Linear Thermal Expansion	(x 10 <sup>-5</sup> in./in./°F)		5.4
Heat Deflection Temp at 264 psi	°F		220
Melting Temperature	°F		335
Max Operating Temp.	°F		180
Thermal Conductivity	BTU-in/ft <sup>2</sup> -hr-°F		1.6
Flammability Rating			HB
ELECTRICAL PROPERTIES	UNITS	ASTM	RESULTS
Dielectric Strength. 1/8" th.	V/mil	D149	420
Dielectric Constant @1 MHz			3.8
Dissipation Factor@1 MHz		D150	3.8
Volume Resistivity, 50% RH	ohm-cm	D257	1015

NOTE: The information contained herein are typical values intended for reference and comparison purposes only. They should NOT be used as a basis for design specifications or quality control. Contact us for manufacturers' complete material property datasheets. All values at 73°F (23°C) unless otherwise noted.

Acetron is a registered trademark of Quadrant EPP