



## Celcon® CF802 10/9022

Celanese Corporation - Acetal (POM) Copolymer

Saturday, November 2, 2019

### General Information

#### Product Description

Celcon® acetal copolymer grade CF802 10/9022 is a conductive, fuel compatible general purpose acetal copolymer. Celcon® CF802 10/9022 has been developed to dissipate static electricity from fuel handling systems. Celcon® CF802 10/9022 has been specially formulated for laser welding applications. Please note Celcon® CF802 10/9022 has special processing considerations to ensure static dissipation properties. Use minimum back pressure and slowest screw speed possible in retracting screw during cooling portion of cycle. Large gate size (>2 mm) recommended. Pneumatic conveying of material long distances is not recommended. Celcon® CF802 10/9022 was formerly provided under the Hostaform® tradename.

#### General

|                 |                                               |                                       |                  |
|-----------------|-----------------------------------------------|---------------------------------------|------------------|
| Material Status | • Commercial: Active                          |                                       |                  |
| Availability    | • Africa & Middle East<br>• Asia Pacific      | • Europe<br>• Latin America           | • North America  |
| Features        | • Electrically Conductive<br>• ESD Protection | • Fuel Resistant<br>• General Purpose | • Laser Weldable |
| Uses            | • General Purpose                             |                                       |                  |
| RoHS Compliance | • Contact Manufacturer                        |                                       |                  |

### ASTM & ISO Properties <sup>1</sup>

| Physical                                          | Nominal Value | Unit                  | Test Method     |
|---------------------------------------------------|---------------|-----------------------|-----------------|
| Density                                           | 1.47          | g/cm <sup>3</sup>     | ISO 1183        |
| Molding Shrinkage                                 |               |                       | ISO 294-4       |
| Across Flow                                       | 1.6           | %                     |                 |
| Flow                                              | 1.7           | %                     |                 |
| Mechanical                                        | Nominal Value | Unit                  | Test Method     |
| Tensile Modulus                                   | 435000        | psi                   | ISO 527-2/1A    |
| Tensile Stress (Yield)                            | 8990          | psi                   | ISO 527-2/1A/50 |
| Tensile Strain (Yield)                            | 10            | %                     | ISO 527-2/1A/50 |
| Tensile Creep Modulus (1 hr)                      | 309000        | psi                   | ISO 899-1       |
| Tensile Creep Modulus (1000 hr)                   | 152000        | psi                   | ISO 899-1       |
| Impact                                            | Nominal Value | Unit                  | Test Method     |
| Charpy Notched Impact Strength (73°F)             | 1.9           | ft-lb/in <sup>2</sup> | ISO 179/1eA     |
| Thermal                                           | Nominal Value | Unit                  | Test Method     |
| Heat Deflection Temperature (264 psi, Unannealed) | 212           | °F                    | ISO 75-2/A      |
| Melting Temperature <sup>2</sup>                  | 333           | °F                    | ISO 11357-3     |
| Melting Temperature                               | 329           | °F                    |                 |
| CLTE - Flow                                       | 5.6E-5        | in/in/°F              | ISO 11359-2     |
| CLTE - Transverse                                 | 6.7E-5        | in/in/°F              | ISO 11359-2     |
| Electrical                                        | Nominal Value | Unit                  | Test Method     |
| Surface Resistivity                               | 2.0E+3        | ohms                  | IEC 60093       |
| Volume Resistivity                                | 3.0E+2        | ohms·cm               | IEC 60093       |
| Static Decay - 15% RH, +5kV                       | 10            | msec                  | Internal Method |

### Processing Information

| Injection          | Nominal Value | Unit |
|--------------------|---------------|------|
| Drying Temperature | 212 to 248    | °F   |
| Drying Time        | 3.0 to 4.0    | hr   |

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| Injection              | Nominal Value | Unit |
|------------------------|---------------|------|
| Rear Temperature       | 338 to 356    | °F   |
| Middle Temperature     | 347 to 365    | °F   |
| Front Temperature      | 356 to 374    | °F   |
| Nozzle Temperature     | 374 to 392    | °F   |
| Processing (Melt) Temp | 356 to 392    | °F   |
| Mold Temperature       | 176 to 248    | °F   |
| Injection Rate         | Slow          |      |
| Back Pressure          | < 290         | psi  |

### Injection Notes

Zone4 temperature: 185 to 195°C  
Hot runner temperature: 190 to 200°C

### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 10°C/min