

# RÖCHLING datasheet

SUSTARIN | 2009

## SUSTARIN® C (Acetal)

SUSTARIN® C (Acetal) is a general-purpose copolymer acetal that is porosity free. The technology used in our manufacturing process ensures that every sheet and rod is free of centerline or core porosity. SUSTARIN® C is easily machined with excellent dimensional stability for close tolerance parts. A low coefficient of friction and excellent wear properties, especially in wet or moist environments, make it easy to see why SUSTARIN® C is one of the most widely used engineering thermoplastics available today.

### Product Features:

- ⇒ Excellent dimensional stability
- ⇒ Porosity free
- ⇒ Very low moisture absorption
- ⇒ Easy to machine to close tolerances
- ⇒ Continuous use temperature of 180°F
- ⇒ Consistent properties in wet or moist environments
- ⇒ Excellent electrical properties
- ⇒ Natural and Black are FDA, USDA, NSF and 3-A Dairy compliant

### Typical Properties of Stock Shapes

| Property                             | Units    | Test Method | Value Natural & Black  |
|--------------------------------------|----------|-------------|------------------------|
| Specific Gravity                     | -        | ASTM D 792  | 1.41                   |
| Water Absorption 24 hrs              | %        | ASTM D 570  | 0.2                    |
| Water Absorption Saturation          | %        | ASTM D 570  | 0.9                    |
| Flammability                         | -        | UL 94       | HB                     |
| Tensile Strength                     | psi      | ASTM D 638  | 9,500                  |
| Elongation                           | %        | ASTM D 638  | 40                     |
| Modulus                              | psi      | ASTM D 638  | 400,000                |
| Flexural Strength                    | psi      | ASTM D 790  | 12,000                 |
| Modulus                              | psi      | ASTM D 790  | 400,000                |
| Notched Izod                         | ft-lb/in | ASTM D 256  | 1.2                    |
| Rockwell Hardness                    | -        | ASTM D 785  | M88                    |
| HDT @ 264 psi                        | °F       | ASTM D 648  | 225                    |
| Coefficient Linear thermal expansion | in/in/°F | ASTM D 696  | 5.50 x10 <sup>-5</sup> |
| Dielectric Strength                  | V / mil  | ASTM D 149  | 450                    |
| Volume Resistivity                   | ohm-cm   | ASTM D 257  | 10 <sup>16</sup>       |
| Dielectric Constant                  | -        | ASTM D 150  | 3.8                    |

### Typical Applications

- ⇒ Bushings and bearings
- ⇒ Rollers and gears
- ⇒ Valves and manifolds
- ⇒ Scraper blades
- ⇒ Wear strips and pads
- ⇒ Jigs and fixtures
- ⇒ Electrical components

### Certifications

- ⇒ ASTM D6100-05 POM 0211, D6778
- ⇒ FDA21 CFR 177.2470
- ⇒ USDA, 3A Dairy & NSF compliant



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