

**Product Texts**

Hostaform® C 9021 10/9005 is a nominal 9 melt flow rate acetal copolymer which is capable of being permanently marked by a laser. Parts molded from Hostaform® C 9021 10/9005 can be laser marked with barcodes, identification numbers, designs, 2-D symbology, etc.

|                                    |    |                    |
|------------------------------------|----|--------------------|
| Flammability @1.6mm nom. thickn.   | HB | -                  |
| Flammability at thickness h (3 mm) | HB | UL recognition (h) |

| Processing/Physical Characteristics         | Value          | Unit                   | Test Standard   |
|---|----------------|------------------------|-----------------|
| <b>ISO Data</b>                             |                |                        |                 |
| <sup>[C]</sup> Melt volume-flow rate, MVR   | <b>8</b>       | cm <sup>3</sup> /10min | ISO 1133        |
| Temperature                                 | <b>190</b>     | °C                     | -               |
| Load  | <b>2.16</b>    | kg                     | -               |
| <sup>[C]</sup> Molding shrinkage, parallel  | <b>2.0</b>     | %                      | ISO 294-4, 2577 |
| <sup>[C]</sup> Molding shrinkage, normal    | <b>1.8</b>     | %                      | ISO 294-4, 2577 |
| <sup>[C]</sup> Density of melt              | <b>1200</b>    | kg/m <sup>3</sup>      | -               |
| <sup>[C]</sup> Thermal conductivity of melt | <b>0.155</b>   | W/(m K)                | -               |
| <sup>[C]</sup> Spec. heat capacity of melt  | <b>2210</b>    | J/(kg K)               | -               |
| <sup>[C]</sup> Eff. thermal diffusivity     | <b>4.85E-8</b> | m <sup>2</sup> /s      | -               |
| <sup>[C]</sup> Ejection temperature         | <b>140</b>     | °C                     | -               |

[C]: CAMPUS

| Mechanical properties                                | Value       | Unit              | Test Standard |
|--|-------------|-------------------|---------------|
| <b>ISO Data</b>                                      |             |                   |               |
| <sup>[C]</sup> Tensile Modulus                       | <b>2850</b> | MPa               | ISO 527       |
| <sup>[C]</sup> Yield stress                          | <b>64</b>   | MPa               | ISO 527       |
| <sup>[C]</sup> Yield strain                          | <b>9</b>    | %                 | ISO 527       |
| <sup>[C]</sup> Nominal strain at break               | <b>25</b>   | %                 | ISO 527       |
| <sup>[C]</sup> Charpy impact strength, +23°C         | <b>180</b>  | kJ/m <sup>2</sup> | ISO 179/1eU   |
| <sup>[C]</sup> Charpy impact strength, -30°C         | <b>160</b>  | kJ/m <sup>2</sup> | ISO 179/1eU   |
| <sup>[C]</sup> Charpy notched impact strength, +23°C | <b>5.5</b>  | kJ/m <sup>2</sup> | ISO 179/1eA   |
| <sup>[C]</sup> Charpy notched impact strength, -30°C | <b>5</b>    | kJ/m <sup>2</sup> | ISO 179/1eA   |

[C]: CAMPUS

| Thermal properties   | Value      | Unit  | Test Standard   |
|--|------------|-------|-----------------|
| <b>ISO Data</b>  |            |       |                 |
| <sup>[C]</sup> Melting temperature, 10°C/min               | <b>166</b> | °C    | ISO 11357-1/-3  |
| <sup>[C]</sup> Temp. of deflection under load, 1.80 MPa    | <b>104</b> | °C    | ISO 75-1/-2     |
| <sup>[C]</sup> Coeff. of linear therm. expansion, parallel | <b>110</b> | E-6/K | ISO 11359-1/-2  |
| <sup>[C]</sup> Coeff. of linear therm. expansion, normal   | <b>110</b> | E-6/K | ISO 11359-1/-2  |
| <sup>[C]</sup> Burning Behav. at 1.5 mm nom. thickn.       | <b>HB</b>  | class | IEC 60695-11-10 |
| Thickness tested   | <b>1.5</b> | mm    | -               |
| <sup>[C]</sup> Burning Behav. at thickness h               | <b>HB</b>  | class | IEC 60695-11-10 |
| Thickness tested   | <b>3.0</b> | mm    | -               |
| Yellow Card available                                      | <b>yes</b> | -     | -               |

[C]: CAMPUS

| Electrical properties                       | Value       | Unit  | Test Standard |
|---|-------------|-------|---------------|
| <b>ISO Data</b>                             |             |       |               |
| <sup>[C]</sup> Relative permittivity, 100Hz | <b>4</b>    | -     | IEC 62631-2-1 |
| <sup>[C]</sup> Relative permittivity, 1MHz  | <b>4</b>    | -     | IEC 62631-2-1 |
| <sup>[C]</sup> Dissipation factor, 100Hz    | <b>20</b>   | E-4   | IEC 62631-2-1 |
| <sup>[C]</sup> Dissipation factor, 1MHz     | <b>50</b>   | E-4   | IEC 62631-2-1 |
| <sup>[C]</sup> Volume resistivity           | <b>1E12</b> | Ohm*m | IEC 62631-3-1 |
| <sup>[C]</sup> Surface resistivity          | <b>1E14</b> | Ohm   | IEC 62631-3-2 |

|                       |           |       |             |
|-----------------------|-----------|-------|-------------|
| [C] Electric strength | <b>35</b> | kV/mm | IEC 60243-1 |
| [C]: CAMPUS           |           |       |             |

| Other properties        | Value       | Unit              | Test Standard  |
|-------------------------|-------------|-------------------|----------------|
| [C] Water absorption    | <b>0.65</b> | %                 | Sim. to ISO 62 |
| [C] Humidity absorption | <b>0.2</b>  | %                 | Sim. to ISO 62 |
| [C] Density             | <b>1410</b> | kg/m <sup>3</sup> | ISO 1183       |
| [C]: CAMPUS             |             |                   |                |

| Processing Recommendation Injection Molding | Value            | Unit | Test Standard |
|---|------------------|------|---------------|
| Pre-drying - Temperature                    | <b>100 - 120</b> | °C   | -             |
| Pre-drying - Time                           | <b>3 - 6</b>     | h    | -             |
| Processing humidity                         | <b>≤0.2</b>      | %    | -             |
| Melt temperature                            | <b>190 - 210</b> | °C   | -             |
| Mold temperature                            | <b>80 - 120</b>  | °C   | -             |

**Characteristics**

|  |  |
|--|--|
| <b>Processing</b><br>Injection Molding | <b>Features</b><br>Laser Markable, Copolymer   |
| <b>Delivery form</b><br>Pellets        | <b>Regional Availability</b><br>North America, Europe, Asia Pacific, South and Central America, Near East/Africa |
| <b>Additives</b><br>Release agent      |  |

**Other text information**

**Injection molding**

General drying is not necessary due to low moisture absorption of the resin.

In case of bad storage conditions (water contact or condensed water) the use of a recirculating air dryer (100 to 120 °C / max. 40 mm layer / 3 to 6 hours) is recommended.

Max. Water content 0,2 %  
Standard injection moulding machines with three phase (15 to 25 D) plasticating screws will fit.

Conditioning e.g. moisturizing is not necessary.