

## HOSTAFORM® AM90S | POM | Specialty

### Description

Hostaform® acetal copolymer grade AM90S is a standard melt flow acetal copolymer grade containing an antimicrobial ingredient. Hostaform® AM90S provides the same physical and mechanical performance of standard Hostaform and Celcon acetal copolymer grades plus the added benefit of inhibiting bacterial growth.

Preliminary Data Sheet

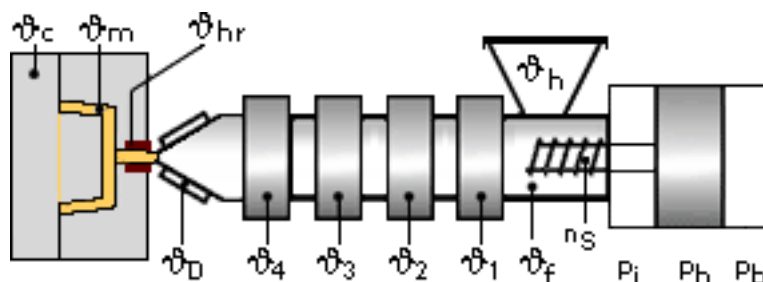
| Physical properties       | Value       | Unit                   | Test Standard |
|---------------------------|-------------|------------------------|---------------|
| Density                   | <b>1410</b> | kg/m <sup>3</sup>      | ISO 1183      |
| Melt volume rate (MVR)    | <b>8</b>    | cm <sup>3</sup> /10min | ISO 1133      |
| MVR test temperature      | <b>190</b>  | °C                     | ISO 1133      |
| MVR test load             | <b>2.16</b> | kg                     | ISO 1133      |
| Mold shrinkage - parallel | <b>2.5</b>  | %                      | ISO 294-4     |
| Mold shrinkage - normal   | <b>2.3</b>  | %                      | ISO 294-4     |

| Mechanical properties                  | Value       | Unit              | Test Standard |
|--|-------------|-------------------|---------------|
| Tensile modulus (1mm/min)              | <b>2750</b> | MPa               | ISO 527-2/1A  |
| Tensile stress at yield (50mm/min)     | <b>65</b>   | MPa               | ISO 527-2/1A  |
| Tensile strain at yield (50mm/min)     | <b>10</b>   | %                 | ISO 527-2/1A  |
| Flexural modulus (23°C)                | <b>2650</b> | MPa               | ISO 178       |
| Charpy notched impact strength @ 23°C  | <b>6.0</b>  | kJ/m <sup>2</sup> | ISO 179/1eA   |
| Charpy notched impact strength @ -30°C | <b>5.5</b>  | kJ/m <sup>2</sup> | ISO 179/1eA   |

| Thermal properties                          | Value      | Unit   | Test Standard     |
|---|------------|--------|-------------------|
| Melting temperature (10°C/min)              | <b>167</b> | °C     | ISO 11357-1,-2,-3 |
| DTUL @ 1.8 MPa                              | <b>98</b>  | °C     | ISO 75-1/-2       |
| Coeff.of linear therm. expansion (parallel) | <b>1.1</b> | E-4/°C | ISO 11359-2       |

| Test specimen production       | Value         | Unit | Test Standard |
|--------------------------------|---------------|------|---------------|
| Processing conditions acc. ISO | <b>9988-2</b> | -    | Internal      |

### Typical injection moulding processing conditions



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### Pre Drying:

Drying is not normally required. If material has come in contact with moisture through improper storage or handling or through regrind use, drying may be necessary to prevent splay and odor problems.

**Drying time: 3 h**

**Drying temperature: 80 - 100 °C**

### Temperature:

|          | Manifold | Mold | Melt | Nozzle | Zone4 | Zone3 | Zone2 | Zone1 |
|----------|----------|------|------|--------|-------|-------|-------|-------|
| min (°C) | 180      | 80   | 180  | 190    | 190   | 180   | 180   | 170   |
| max (°C) | 200      | 120  | 200  | 200    | 200   | 190   | 190   | 180   |

### Pressure:

|           | Inj press | Hold press | Back pressure |
|-----------|-----------|------------|---------------|
| min (bar) | 600       | 600        | 0             |
| max (bar) | 1200      | 1200       | 5             |

### Speed:

**Injection speed: slow-medium**

## Injection Molding

Standard injection moulding machines with three phase (15 to 25 D) plasticating screws will fit.

|                   |            |
|-------------------|------------|
| Melt temperature  | 190-230 °C |
| Mould temperature | 80-120 °C  |

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### General Disclaimer

NOTICE TO USERS: Values shown are based on testing of laboratory test specimens and represent data that fall within the standard range of properties for natural material. These values alone do not represent a sufficient basis for any part design and are not intended for use in establishing maximum, minimum, or ranges of values for specification purposes. Colorants or other additives may cause significant variations in data values.

Properties of molded parts can be influenced by a wide variety of factors including, but not limited to, material selection, additives, part design, processing conditions and environmental exposure. Any determination of the suitability of a particular material and part design for any use contemplated by the users and the manner of such use is the sole responsibility of the users, who must assure themselves that the material as subsequently processed meets the needs of their particular product or use.

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