

HOSTAFORM® M25IE

HOSTAFORM®

Hostaform® M25IE is a special grade of acetal copolymer targeted for calendering. It provides sheets with a high gloss and smooth surface.

Chemical abbreviation according to ISO 1043-1: POM

Product information

| | | |
|----------------------|-------|-----------|
| Resin Identification | POM | ISO 1043 |
| Part Marking Code | >POM< | ISO 11469 |

Rheological properties

| | | |
|----------------------------------|----------------------------|----------|
| Melt volume-flow rate | 2.5 cm ³ /10min | ISO 1133 |
| Temperature | 190 °C | |
| Load | 2.16 kg | |
| Melt mass-flow rate | 2.9 g/10min | ISO 1133 |
| Melt mass-flow rate, Temperature | 190 °C | |
| Melt mass-flow rate, Load | 2.16 kg | |

Typical mechanical properties

| | | |
|--------------------------------------|--------------------------------------|--------------|
| Tensile modulus | 2400 MPa | ISO 527-1/-2 |
| Tensile stress at yield, 50mm/min | 61 MPa | ISO 527-1/-2 |
| Tensile strain at yield, 50mm/min | 11 % | ISO 527-1/-2 |
| Flexural modulus | 2400 MPa | ISO 178 |
| Charpy impact strength, 23°C | 250 ^[P] kJ/m ² | ISO 179/1eU |
| Charpy impact strength, -30°C | 250 kJ/m ² | ISO 179/1eU |
| Charpy notched impact strength, 23°C | 8.5 kJ/m ² | ISO 179/1eA |
| Poisson's ratio | 0.38 ^[C] | |

[P]: Partial Break

[C]: Calculated

Thermal properties

| | | |
|--|-----------|----------------|
| Melting temperature, 10°C/min | 163 °C | ISO 11357-1/-3 |
| Temperature of deflection under load, 1.8 MPa | 91 °C | ISO 75-1/-2 |
| Coefficient of linear thermal expansion (CLTE), parallel | 110 E-6/K | ISO 11359-1/-2 |
| Coefficient of linear thermal expansion (CLTE), normal | 100 E-6/K | ISO 11359-1/-2 |

Physical/Other properties

| | | |
|--------------------------|------------------------|----------------|
| Humidity absorption, 2mm | 0.2 % | Sim. to ISO 62 |
| Density | 1410 kg/m ³ | ISO 1183 |

Injection

| | |
|---------------------------------|---------|
| Drying Recommended | no |
| Drying Temperature | 100 °C |
| Drying Time, Dehumidified Dryer | 3 - 4 h |
| Processing Moisture Content | ≤0.2 % |
| Melt Temperature Optimum | 200 °C |
| Min. melt temperature | 190 °C |
| Max. melt temperature | 210 °C |

HOSTAFORM® M25IE

HOSTAFORM®

| | |
|--------------------------|--------------|
| Screw tangential speed | ≤0.3 m/s |
| Mold Temperature Optimum | 100 °C |
| Min. mould temperature | 80 °C |
| Max. mould temperature | 120 °C |
| Hold pressure range | 60 - 120 MPa |
| Back pressure | 4 MPa |

Characteristics

| | |
|---------------|--|
| Processing | Injection Moulding, Extrusion, Sheet Extrusion, Other Extrusion, Calendering |
| Delivery form | Pellets |

Additional information

Profile extrusion

Preprocessing

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 %

Processing

Standard extruders with grooved feed zone and short compression screws (minimum 25 D) will fit.

Melt temperature 180-190 °C

Postprocessing

Conditioning e.g. moisturizing is not necessary.

In case of very thick wall thickness profiles after-annealing it is recommended to reduce internal stress.

Annealing temperature 130-140 °C
Annealing time 10 min/mm thickness

Sheet extrusion

Preprocessing

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

HOSTAFORM® M25IE

HOSTAFORM®

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 %

Processing

Standard extruders with grooved feed zone and short compression screws (minimum 25 D) will fit.

Melt temperature 180-190 °C

Postprocessing

Conditioning e.g. moisturizing is not necessary.

In case of very thick wall thickness profiles after-annealing it is recommended to reduce internal stress.

Annealing temperature 130-140 °C
Annealing time 10 min/mm thickness

Processing Notes

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.