

TECHNICAL DATA SHEET

[English Units]



TOPAS® 7010F-600

Cyclic Olefin Copolymer (COC)

Developmental extrusion grade, characterized by elevated temperature stability and robust processing behavior

| Property | Value | Unit | Test Standard |
|--|-------|--|-------------------|
| Physical Properties | | | |
| Density | 1020 | kg/m ³ | ISO 1183 |
| Melt volume rate (MVR) (230°C, 2.16kg) | 10,0 | cm ³ /10min | ISO 1133 |
| Melt volume rate (MVR) (190°C, 2.16kg) | 0,8 | cm ³ /10min | ISO 1133 |
| Melt flow rate (MFR) (230°C, 2.16kg) | 9,0 | g/10min | calculated |
| Melt flow rate (MFR) (190°C, 2.16kg) | 0,7 | g/10min | calculated |
| Water absorption (23°C-sat) | 0,01 | % | ISO 62 |
| Thermal Properties | | | |
| Glass transition temperature (10°C/min) | 230 | °F | ISO 11357-1,-2,-3 |
| Mechanical Properties (Film) | | | |
| Tensile modulus (machine direction) | 320 | kpsi | ISO 527-3 |
| Tensile modulus (transverse direction) | 300 | kpsi | ISO 527-3 |
| Tensile strength @ break (machine direction) | 8700 | psi | ISO 527-3 |
| Tensile strength @ break (transverse direction) | 8300 | psi | ISO 527-3 |
| Elongation at break (machine direction) | 3,6 | % | ISO 527-3 |
| Elongation at break (transverse direction) | 3,5 | % | ISO 527-3 |
| Barrier Properties (Film) | | | |
| Water vapor permeability @ 38°C, 90% RH | 0,25 | g×mil/100in ² ×day | ISO 15106-3 |
| Oxygen permeability @ 23°C, 50% RH | 70 | cm ³ ×mil/100in ² ×day | ASTM D3985 |
| Test Specimen Production (Film) | | | |
| Type of extrusion | cast | | |
| Thickness of specimen | 3,94 | mil | |

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