

Technical Properties

THERMAL

HDT, 264 psi, 1.82 MPa
 CTE, -22°F to 86°F
 Temperature – Continuous
 Short Term Maximum Temperature
 Degradation Temperature

METHOD OF TEST

ASTM D-648
 ASTM D-696

RATING

203 °F
 .65mm/36"/18°F
 170 °F
 202 °F
 >530 °F

MECHANICAL

Maximum Tensile Strength
 Elongation at Break
 Tensile Modulus
 Flexural Strength
 Flexural Modulus
 Izod Impact Strength, Milled Notch
 Abrasion (Taber, 10 rots. CS10F 500g)
 Pencil Hardness

METHOD OF TEST

ASTM D-638
 ASTM D-638
 ASTM D-638
 ASTM D-790
 ASTM D-790
 ASTM D-256
 ASTM D-1044
 ASTM D-3363

RATING

70 MPa (10,000 psi)
 4%
 3,000 MPa (435,000 psi)
 100 MPa (15,000 psi)
 3,000 MPa (435,000 psi)
 15 J/m (0.28 ft·lb/in)
 <10% Gloss
 6H

FIRE PROPERTIES – LIGHT TRANSMITTING PLASTICS

Most building codes recognize that most thermoplastics do not meet all the ASTM E 84 testing requirements for Interior Finishes as it's a ceiling based test and therefore unsuitable for thermoplastics that may melt or drip. An alternative testing criteria has been established in the code for Light Transmitting Plastics. Heartland HPP complies with the International Building Code for Light Transmitting Plastics (*being ASTM D-2843 and ASTM D-635*).

FIRE PERFORMANCE

Burn Rate (Flammability)
 Smoke Density Rating
 Ignition Temperature
 Spontaneous Ignition Temperature
 Flame Spread
 Flame Spread Index

METHOD OF TEST

ASTM D 635
 ASTM D 2843
 ASTM D 1929
 ASTM D 1929
 UL94 Horizontal Burning test 94HB
 ASTM E84

RATING

<3/4" min - Pass
 3.7% - Pass
 628°F
 734°F
 Average 15/16" min - Pass
 130

