

Trucast Product Data



Physical Properties of Trucast

The following physical properties were determined by using 3mm thickness of Trucast and 4mm thickness of HHC High Impact.

| Properties | ASTM | Unit | Trucast | High Impact |
|--|------------|--------------------|----------------------|-------------------------|
| Specific Gravity | D 792-60 T | | 1.19 | 1.19 |
| Optical | | | | |
| Refractive Index | D 542-50 | | 1.49 | 1.49 |
| Light Transmittance | D 1003-61 | | | |
| Parallel | | % | 92 | 92 |
| Total | | % | 93 | 93 |
| Haze | | % | 1 | 1 |
| Mechanical | | | | |
| Tensile Strength | D 638-61 T | | | |
| Rupture | | kg/cm ² | 758 | 520 |
| Modulus of Elasticity | | kg/cm ² | 3 x 10 ⁴ | 2.56 x 10 ⁴ |
| Elongation at Rupture | | % | 4.5 | 4.5 |
| Flexural Strength | D 790-63 | | | |
| Rupture | | kg/cm ² | 1,265 | 949 |
| Modulus of Elasticity | | kg/cm ² | 3 x 10 ⁴ | 2.67 x 10 ⁴ |
| Compressive Strength | D 695-63 T | | | |
| Yield | | kg/cm ² | 1,260 | |
| Modulus of Elasticity | | kg/cm ² | 3 x 10 ⁴ | |
| Shear Strength | D 732-46 | kg/cm ² | 625 | 612 |
| Impact Strength | D 256-56 | | | |
| Falling Ball Impact | | kg/cm ² | 0.8 | |
| Falling Dart Impact | | N•M | | 21.693 |
| Rockwell Hardness | D 785-62 | | M 100 | |
| Thermal | | | | |
| Hot Forming Temperature | | °C | 140-180 | 160-198 |
| Heat Distortion Temperature | | | | |
| 2° C/Min – 264 p.s.i. | D 648-56 | °C | 100 | 82.2 |
| Coefficient of Thermal Expansion | D 696-44 | cm/cm/°C | 7 x 10 ⁻⁵ | 7.56 x 10 ⁻⁵ |
| Specific Heat | | Cal/gr °C | 0.35 | |
| Electrical | | | | |
| Surface Resistivity 28° C, 75% RH | | ohm | >10 ¹⁶ | |
| Volume Resistivity | D 257-61 | ohm cm | >15 ¹⁵ | |
| Dielectric Strength | | | | |
| Short Time Test | D 149-64 | kv/mm | 20 | |
| Arc Resistance | D 495-61 | | No Track | |
| Miscellaneous | | | | |
| Flammability (Burning Rate) | D 635-63 | mm/min | 33 | 54 |
| Water Absorption (Wt. Gain on Immersion for 24 hrs.) | D 570-63 | % | 0.3 | 0.3 |
| Soluble Matter Lost after Immersion | | % | 0.0 | 0.0 |
| Odor | | | None | None |
| Taste | | | None | None |