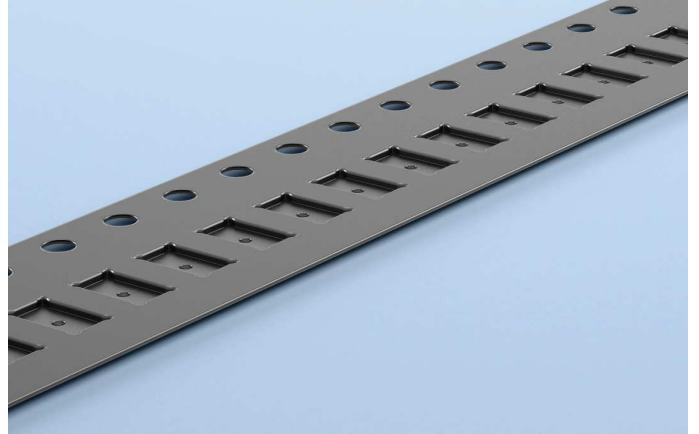


Advantek's Q-Series Polycarbonate material provides superior performance, especially for small pockets requiring very sharp pocket features and support for high draw ratios. ESD-safe polycarbonate maintains its flexibility, stability and strength through time and temperature variations. Advantek's Q-Series carrier tape is available for standard and clean room compatible applications.

- > Engineering for high-precision pockets supporting small components, LEDs and bare die applications
- > Clean room compatible processing available
- > All Advantek carrier tape is manufactured in accordance with current EIA standards to ensure compatibility with tape and reel equipment



Material Properties

| Property | Unit | Setup | Value | Standard |
|------------------------------|-------------------|-------------------|---|--------------|
| Material Thickness | mm | - | QA - 0.20mm QB - 0.25mm QC - 0.30mm Q - 0.33mm | - |
| Gloss @ 60° | GU | Shiny | 50 - 85 | ASTM D523 |
| | | Matte | 9 - 30 | |
| Surface Resistance | Ohms | Shiny | 1.0E5 - 1.0E11 | STM 11.13 |
| | | Matte | 1.0E5 - 1.0E11 | |
| Tensile Strength @ Break | Psi | Machine Direction | 5000 - 9000 | ASTM D882 |
| Elongation @ Break | % | | 15 - 30 | |
| Glass Transition Temperature | °C | 10°C/min | 110 - 120 | ASTM 3418 |
| Density | g/cm ³ | - | 1.0 - 1.5 | ASTM D792 |
| Color | - | - | Black | ADV Internal |
| Transmittance | % | - | - | ASTM D1003 |
| Haze | % | - | - | |

Note: Conditioned at 23 °C, 50% RH for 24 hours. Values presented are typical laboratory results and may be changed without notice.

Shelf Life and Storage

Product should be used within 5 years from the date of manufacture. Store in its original packaging in a climate-controlled environment where temperature ranges from 21°C +/- 17°C (70°F +/- 30°F). Product is not affected by humidity. Allow to stabilize at room temperature prior to use.

Camber

Meets current EIA-481 standard for camber that is not greater than 1 in 250 linear millimeters. For 8mm carrier tape in level-wind format, camber will not be greater than 2 in 250 linear millimeters.

Cover Tape Compatibility

| Type | Heat Activated | | | Pressure Activated |
|-------------------------|----------------|-----|-----|--------------------|
| | HUG | AD2 | HUE | PUC |
| Polycarbonate Monolayer | ✓ | ✓ | ✓ | ✓ |