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## **Technical Data Sheet**

- Product Name** QPAC® 25
- Technical Name** Poly (ethylene carbonate)
- Chemical Formula** (C<sub>3</sub>H<sub>4</sub>O<sub>3</sub>)<sub>n</sub>
- Product Description** Poly (ethylene carbonate) is a solid polymer. It is an amorphous, clear, readily processible plastic with long term mechanical stability.
- Molecular Weight Avail** From Approximately 50,000 to 200,000
- Applications:**
- Binder applications for ceramics, metal or glass powders.
  - Used to make high purity technical parts
  - Pastes and inks
  - Coatings
- Non binder applications for barrier film in plastic processing

### **Typical Physical Properties**

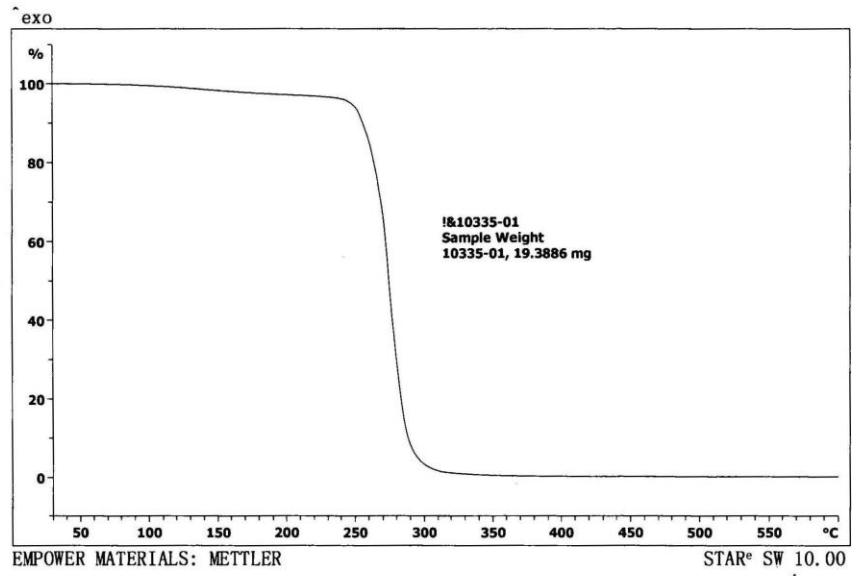
<b>Property</b>	<b>Value</b>
Density (g/cm <sup>3</sup> )	1.42
Refractive Index	1.470
Decomposition Temperature (°C)	220 (estimate)
Glass Transition Temperature (°C)	0-10
Heat of combustion (cal/gm)	3,753
Heat of formation (cal/mol)	-88,726
Molar Mass of repeating unit	88.1
Solubility	Upon request

**Product Delivery Form** It is available as a granulate, film, or in solution form.

**Benefits Include:**

- Upon decomposition, QPAC®25 leaves less than 10 ppm ash residue, resulting in excellent mechanical and/or electrical properties
- Low temperature decomposition is excellent for thermal sensitive materials and is more efficient than other binders
- QPAC®25 has excellent green strength and results in high density final parts with improved part structure.
- Decomposition can occur in a wide range of atmospheres including air, oxygen, nitrogen, hydrogen, argon and vacuum

# TGA FOR QPAC® 25



CAS #

25608-11-1