

QPAC® Polyalkylene Carbonate Polymers Environmentally Friendly Binders For Thick Film Applications

QPAC® Binders

QPAC® (Polyalkylene Carbonates) is synthesized through the polymerization of carbon dioxide and epoxides. These environmentally friendly binders burn cleanly, decomposing to CO₂ and water. QPAC® is removed completely at very low temperatures and in any oxidizing or inert environment. QPAC® environmentally friendly binders are the perfect binders for low temperature firing thick film formulations.

QPAC® is Ideal for your Glass Paste and Preform Applications!

Here's Why:

- QPAC® is compatible with a variety of sealing glasses and metals
- QPAC® burns out at least 100°C lower than other binders in most glass types
- QPAC® leaves very little residual carbon as compared to other binders.
- QPAC® glass pastes have excellent rheology properties and suspension stability.

Fired thick film pastes made with QPAC® are nearly identical in appearance to fired samples of the corresponding neat glass, indicating little or no remnant material from the binder. These reduced levels of residual carbon enable improved performance in the final thick film material and device. Additionally, QPAC®'s products of decomposition, carbon dioxide and water vapor, will not contaminate furnaces over time. This enables increased furnace loading and reduced furnace maintenance, thereby lowering manufacturing costs.



CO₂ based polymers for a cleaner, more demanding world

**Named 2011 North American Technology
Innovation of the Year Award in the carbon capture
materials market by Frost and Sullivan.**

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