Epoxy for Composite Cylinders – A Growth Opportunity

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Abstract:

Composite cylinders were developed in early seventies and were used mainly for high end applications like Aerospace applications. Over the period of time technology improved, these cylinders became commercially viable for filling LPG, CNG and other gases for automotive, cooking gas and various other applications.

To make these cylinders, epoxy resin is used as matrix material along with Glass/carbon fiber. Epoxy resin chemistry is quite versatile and widely used in composite industry for numerous applications. Epoxy systems have got good thermal, mechanical and chemical resistance properties. Epoxy resins also offers very good fatigue resistance to give longer working life to these cylinders. These cylinders have the advantage over conventional metallic cylinders.

Market for CNG based automotives is increasing along with composite LPG cylinder. Growth in composite cylinder market will increase the demand for epoxies system.

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