



GLASSINSIGHT

Improving Performance In Glass Production

May 2011

Issue 7

www.pyrotek.info/glass

DUPONT™ VESPEL® SCP-5050 MATERIAL INNOVATION FOR GLASS HANDLING AT GLASSMAN EUROPE

DuPont™ Vespel® SCP-5050 parts and shapes are an innovative material technology used for glassware handling marketed worldwide by Pyrotek and will be on display at Glassman Europe Barcelona in May. While designed for take-out insert applications, this material technology has been successfully adopted within a variety of applications including sweep-out pads, blow heads, and dead plates. Data gathered through testing and during global joint customer trials comparing Vespel® SCP-5050 parts to a common contact material (glass handling grade of carbon-graphite), reflected higher performance of Vespel® parts under test conditions. (Figures 1 and 2)

DuPont™ Vespel® parts are custom-made from SCP-5050 polyimide resins to combine the best characteristics of plastics, metals and ceramics. Vespel® parts resist wear, fight creep, and have high temperature resistance, allowing them to survive a broad range of conditions. Vespel® parts provide outstanding wear resistance in lubricated or unlubricated environments, and can operate long-term from cryogenic temperatures up to 348°C (660°F), and short-term up to 482°C (900°F) and above. They also offer low thermal and electrical conductivity, and are easily machined without special equipment or procedures.

Most glass defects or scrap can be traced back to a lack of performance in one or more of these areas, but due to improvement in polymer performance, DuPont has developed a polymeric material for applications requiring higher temperature resistance. Due to this feature, Vespel® SCP-5050 is a superior material for hot glass handling. These parts have a unique combination of the desired properties to extend part life, decrease plant scrap and improve melt-to-pack ratios.

High material strength is important for increasing part life, minimizing breakage and reducing downtime in demanding operating conditions of continual use machine environments. Figure 1 compares the impact resistance of a test coupon of a standard glass handling grade of carbon-graphite to a DuPont™ Vespel® SCP-5050 test coupon.

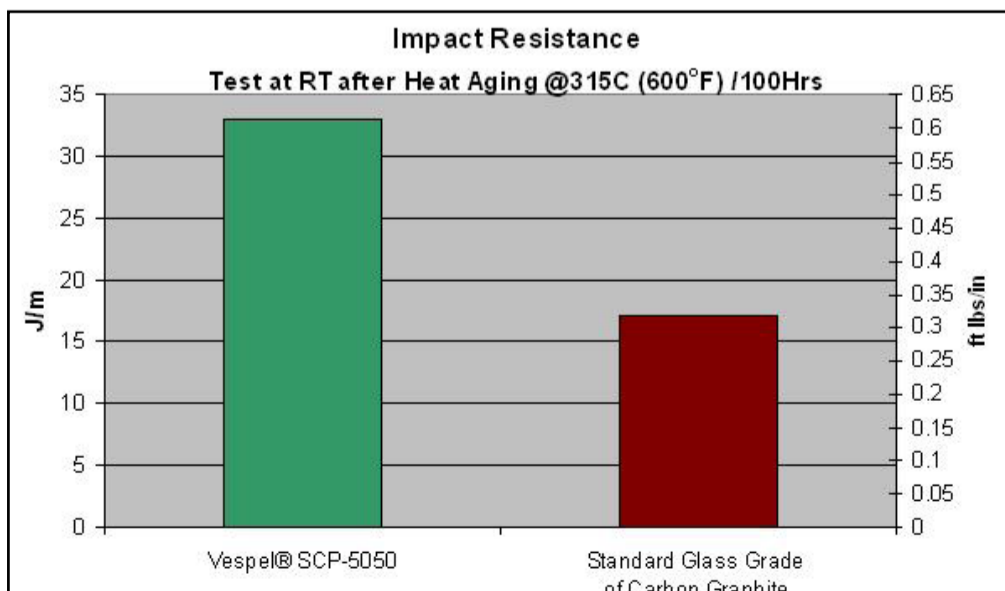
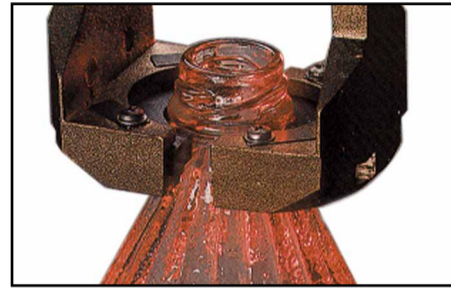


Figure 1: Test Method: ATSM P256 Notched Izod



Vespel® SCP-5050 product.

Similarly, excessive material wear is usually responsible for part replacement. Rapid or excessive wear can cause crashes and costly downtime. Figure 2 compares the wear resistance of a standard glass handling grade of carbon-graphite to the wear resistance of DuPont™

DuPont™ Vespel® SCP-5050 parts are made from a proprietary material designed to offer a comprehensive solution for hot glass handling applications. If you would like to experience the benefits of DuPont™ Vespel® products in your container glass process, and learn more from DuPont™ Vespel® specialists visit Pyrotek and DuPont™ at Glassman Europe, Barcelona Spain, May 25-26 Stand #B22.



Figure 2: Test Method: Oscillating wear comparison with 2.27 kg (5 lb) load at 100 Hz for 24 hr

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