

FOR IMMEDIATE RELEASE

Composites without Compromise: Top-Performing Venus Diamond and Venus Pearl Are BPA and Bis-GMA Free

Heraeus Kulzer's bis-GMA free composites deliver exceptional strength, workability, esthetics and resistance to shrinkage stress

SOUTH BEND, INDIANA, October 10, 2013 —Heraeus Kulzer, LLC, the worldwide leader in dental esthetics, wants dental professionals to know that its Venus Diamond and Venus Pearl composites are BPA and bis-GMA free, without compromising on flexural strength, workability, esthetics or resistance to shrinkage stress.

For years a debate has raged within the dental industry regarding the use of composites containing bis-GMA. The center of the debate concerns bisphenol A, or BPA, a key ingredient in bis-GMA. An estrogen-mimicking compound, BPA is perhaps best known as a building block of some clear plastics, food-contact resins and inks used for store receipts. Despite the ongoing debate about possible health risks associated with BPA, approximately 90 percent of modern composites include bis-GMA.

Unlike most other dental composite manufacturers, Heraeus Kulzer decided a few years ago that it would not simply sit by and wait for the debate to be resolved. Instead, the company focused its energies on developing a new line of highly esthetic, bis-GMA free composites based on the Tricyclodecan-Urethane-Monomer. With this innovative and biocompatible formula, Heraeus Kulzer launched a new generation of composites that deliver minimal shrinkage, high strength and outstanding surface hardness while being easy and convenient to handle. Both Venus Diamond and Venus Pearl have an extended working time under the operating light and do not stick to instruments. With these state-of-the-art composites, sculpting both direct and indirect restorations is easier and more efficient, and the esthetics are exceptional.

There is another reason Heraeus Kulzer decided to pursue a bis-GMA free approach. Historically, shrinkage stress, which potentially causes fractures and marginal gaps, has been a problem with some composite restorations. To combat this issue, bis-GMA was added to conventional composites. While this helped reduce shrinkage, it also made composite pastes highly viscous, which necessitated the addition of reactive diluents to achieve a better workability. Unfortunately, this increased the shrinkage and often shrinkage stress. This potentially unstable equilibrium represents an ongoing challenge in composite production. In light of this, as well as possible health concerns, Heraeus Kulzer decided to develop bis-GMA free composites based on a new chemistry. The resulting

Tricyclodecan-Urethane-Monomer combines minimal shrinkage stress and outstanding flexural strength with exceptional workability, thus making the addition of reactive diluents unnecessary. Moreover, it optimizes all the important physical properties of the filling material.

Thanks to this innovative chemistry, Venus Diamond and Venus Pearl composites have demonstrated strong results in clinical studies concerning high flexural strength, low shrinkage stress, color adaptation and radiopacity. Venus Diamond is the firmest, while Venus Pearl offers a creamier consistency that is ideal for ultra-fine detailed work requiring excellent sculptability and polishability. Both composites are perfectly suitable both for single-shade and multi-layering techniques and are compatible with all commercially available adhesive and bonding techniques.

“Dental professionals who don’t want to worry about possible health issues associated with bis-GMA shouldn’t have to compromise when it comes to esthetics, flexural strength, workability and resistance to shrinkage strength,” said Aundrea Hoffman, Heraeus Kulzer Product Manager. “And that’s exactly why we developed Venus Diamond and Venus Pearl. They are truly composites without compromise.”

Other composites in the Venus product line include the flowable Venus Diamond Flow, designed for exceptionally comfortable use with minimally invasive restorations and cavity lining, and Venus Bulk Fill, designed for simple bulk filling techniques in increments up to 4 mm. Both composites are also BPA and bis-GMA free.

To keep its customers up-to-date regarding product developments, special promotions, educational offerings and other value-added services, Heraeus Kulzer has created the MyDental360 online community. With free membership and exclusive offers, dental professionals now have a one-stop shop for a wide variety of their industry needs. To sign up and receive a free product sample, click here: <http://mydental360.com>.

For more information on Heraeus Kulzer or its products, call **(800) 431-1785** or visit www.heraeusdentalusa.com.

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About Heraeus Kulzer

Heraeus Kulzer GmbH is one of the world’s leading dental companies and is headquartered in Hanau, Germany. Its Dental Materials and Digital Services divisions supply dentists and dental technicians with an extensive product range, covering cosmetic dentistry, tooth preservation, prosthetics, periodontology and digital dentistry. With around 1,400 employees, Heraeus Kulzer’s 2012 sales revenues exceeded \$450 million (exchange rate applied: \$1.00 = €0.77).

Heraeus Kulzer has been part of the Japanese Mitsui Chemicals Group since July 2013. Mitsui Chemicals Inc. (MCI) is based in Tokyo, and has 13,000 employees in over 90 countries worldwide. Its innovative, practical chemical products are as much in demand in

the automotive, electronics and packaging industries as they are in other fields such as environmental protection and healthcare.

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