Dentists have long been looking for a material with economical processing for reliable restoration of large cavities in classical filling therapy. Ideally, a modern material would stabilise the tooth from within, especially in the posterior region which is mainly subject to masticatory forces. In addition, the elimination of several intermediate steps reduces the margins for error and saves valuable treatment time. Hannes Kramer, Country Sales Manager, visited our editorial offices for an interview.

Several bulk fill composites are already on the market. Why is COLTENE Fill-Up!™ only being launched now?

Hannes Kramer: COLTENE has approached the topic of bulk fill with caution. The clinical and technical requirements are extremely high for such a material. We have developed the product in collaboration with universities to obtain the best possible quality and safety in treatment. Furthermore, Fill-Up! is an innovation which aptly lives up to the name Bulk Fill. What is the difference to other bulk fill composites?

H. K.: The presently available bulk fill materials are limited to a maximum of 5 mm layer thickness. In addition, most products require a covering layer with a composite that can be modelled. But bulk fill means filling the cavity in a single step. Fill-Up! lives up to this claim. As a result of dual curing, this allows treating cavities up to 10 mm in depth in a single step. In view of the high mechanical stability in the occlusal region, a covering layer is not necessary, can however, be applied as an option for aesthetic or functional reasons. Put like that, dual curing is the key to the new material?

H. K.: Precisely! If the light output is insufficient, a purely light-curing bulk fill material bears the risk of unpolymerised areas which can lead to postoperative hypersensitivities. Fill-Up! offers the user the assurance of the consistent polymerisation throughout. With a high ratio of micro-fillers, Fill-Up! offers optimal mechanical properties as well as being aesthetic. This is not possible with light-curing bulk fill materials as the light would no longer be able to penetrate. This is why these materials are extremely translucent, which is not desirable for restoring a natural tooth.

Is Fill-Up! composite for modelling?

H. K.: No, the material does offer very high stability, so is not is not suitable for modelling. Instead it has advantages which a modelling composite cannot offer. And these are?

H. K.: The flowable Fill-Up! achieves optimal wetting and adaptation to the bonded cavity walls and edges and thus prevents primary marginal gaps. What can you tell us about shrinking stress in the bulk fill technique?

H. K.: Our material combination of bond and bulk fill composite was selected so that shrinking, that shrinking toward the cavity wall is possible. In combination with gentle chemical curing, we thus achieve an optimal, low-stress polymerisation process.
The product is available as universal colour shade between A2 and A3. Is this justified aesthetically?

H. K.: Indeed. It is an economical restoration for patients and only requires little time. Colour selection is eliminated with a universal shade. In addition, Fill-Up! is used in the posterior region outside the aesthetic zone. And, if necessary, there is always the option of a covering layer. However, I believe that aesthetics have a lower priority for the patient group in question.

In which patient group is Fill-Up! used in dental practice?

H. K.: In patients where time is an important factor, for example, children, the elderly, handicapped persons, or patients with a limited budget. Sometimes the clinical situation also demands the use of such a product: deep cavities which impair light polymerisation, deep undercuts or zones with difficult access, for example, the eight. And for smaller cavities, the flowable composite offers the additional benefit of minimally invasive restoration without harming the tooth substance, which would not be possible in this case with a modelling composite.

When will the first studies on Fill-Up! be available?

H. K.: Studies were already available at the launch of the new product, with respect to marginal edge adaptation following masticatory loading, surface roughness as well as depth polymerisation. Studies which confirm that a single layer filling technique is possible with Fill-Up! – and without the need for making compromises.