

Fill faster with Sonic Energy.

SonicFill™ – the fast and easy Composite Filling System for posterior restorations.

NEW

Kerr SonicFill Composite
KaVo SONICfill



Kerr

Sybron Dental Specialties

Your practice is *our* inspiration.

KaVo

KaVo. Dental Excellence.

Technical Background.

System from KaVo and Kerr.

Kerr Corporation and KaVo Dental GmbH have put together their core competences to create a first-of-its-kind, time-saving filling system for posterior restorations.

SonicFill System enables clinicians to perform posterior restorations with an easy-to-use, single-step procedure that combines the advantages of a flowable composite with a universal composite. SonicFill System is comprised of a KaVo handpiece that enables

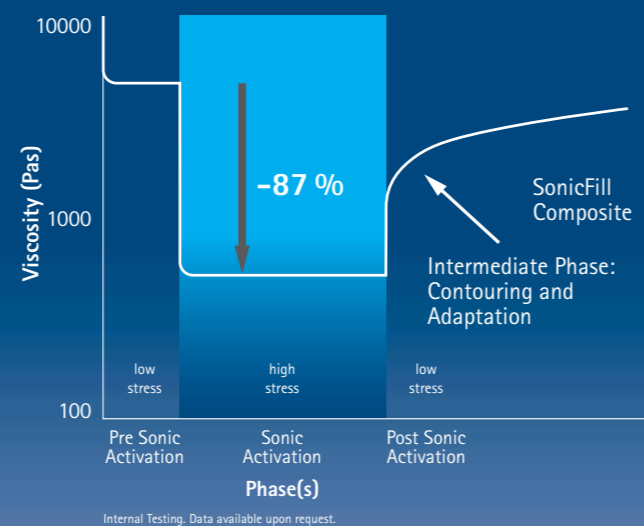
sonic activation of a specially designed and conveniently delivered composite from Kerr. SonicFill's proprietary sonic activation significantly reduces the composite's viscosity to rapidly fill the cavity. Dentists utilizing SonicFill are able to reduce time for placement, packing and sculpting their restorations.

The SonicFill Difference.

SonicFill's technology is unlike any other composite material on the market.

SonicFill's composite incorporates a highly-filled proprietary resin with special modifiers that react to sonic energy. As sonic energy is applied through the handpiece, the modifier causes the viscosity to drop (up to 87%), increasing the flowability of the composite enabling quick placement and precise adaptation to the cavity walls. When the sonic energy is stopped, the composite returns to a more viscous, non-slumping state that is perfect for carving and contouring.

From Activation to Efficient Liquefaction.



Working Process.

Profit from faster posterior restorations.

Placing posterior composite restorations has always been a tedious procedure, cutting into your time and draining your bottom line. SonicFill is the first and only easy-to-use, single-step composite system that doesn't require an additional capping layer.

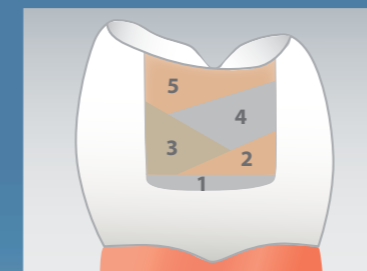
Now you truly have the ability to place, adapt and cure posterior restorations with a single increment of material. It really is that easy! Simply place a single increment, contour, cure for 20 seconds and polish. It really is that fast!

The result:

- effortless placement
- superior adaptation
- excellent sculptability
- easy handling
- easy carving without stickiness
- NO need for 2 mm layering

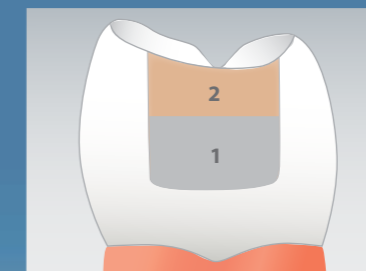
Layering Technique.

Traditional layering technique



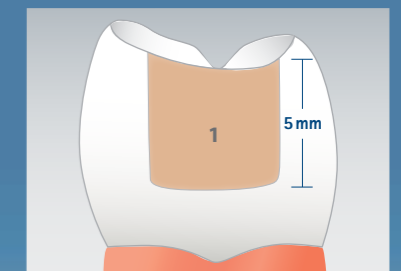
A Universal composite with a flowable as liner

Two layers



Flowable for bulk fill with a universal composite cap

Only one layer



SonicFill System

Features and Benefits.

FAST

- Depth of cure up to 5 mm allows to fill in single-step for cavities up to 5 mm
- Adapting is possible directly with the tip - filling and adapting without need of packing instruments in one step
- Low set up time for assistant and lower number of hand instruments = short handling time

RELIABLE

- Lower viscosity of composite grants a better adaptation to the cavity walls and sonic activation minimizes voids in the composite
- Low shrinkage of composite material and lower shrinkage stress during polymerisation

EASY

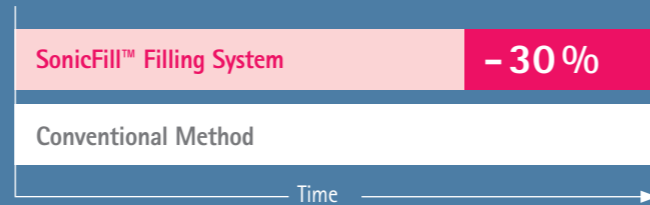
- Small ergonomic Unidose™ Tip allows easy access to the cavity
- Foot switch and 5 dispensing speed settings for control of composite delivery
- Improved handling - non-sticky, non-slumping composite with optimal sculptability

The Fast Filling System.

Go from placement to polished in less than 3 minutes!

On average the dentists using SonicFill compared to conventional layering technique experienced a time saving of approx. 30%. This time saving comes from 5 mm increments that allows the single-step procedure and also from shorter handling time. With SonicFill less instruments are needed because you can adapt the composite directly with the tip and the whole set up time for assistant shortens. The result is that you can go from placement to polished restoration in less than 3 minutes!

Dentists utilizing SonicFill are able to reduce time for placement, packing and sculpting their restorations.



Depth of Cure 5 mm

Increased levels of photoinitiators in the composite material allow a full 5 mm depth of cure in 20 seconds with as little as a 550mW/cm² light source. And SonicFill's higher translucency doesn't compromise aesthetics.

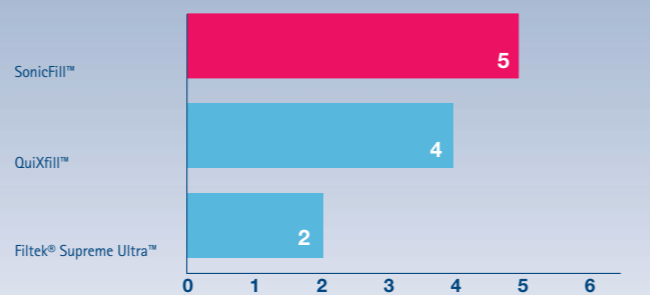
Ready in 3 minutes!



Depth of Cure (mm)

THE DENTAL ADVISOR. Research Report #33. February 2011. www.dentaladvisor.com. Data available upon request.

In this study, several composites were tested to check the depth of cure compared to the manufacturers recommended maximum curing depth: SonicFill (Kerr Corporation) [5mm], QuiXfil (Dentsply Caulk) [4mm], Filtek Supreme Ultra (3M ESPE) [2mm]. The curing light used was set to a sawtooth waveform of 475-625 mW/cm² for 20 seconds. All materials tested were adequately cured when placed in increments up to the manufacturer's maximum recommended depth.



The Reliable Filling System.

How does it work?

Sonic activation of the composite dramatically lowers the viscosity during placement providing superior adaptation to the cavity walls. The composite then returns to a non-slumping, sculptable state making contouring anatomy fast and efficient.

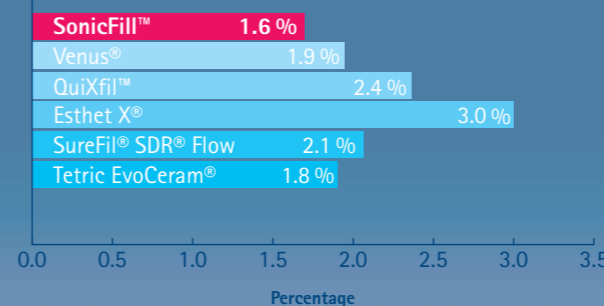
And with SonicFill's extraordinary strength, low shrinkage and high depth of cure, you'll never have to sacrifice quality for speed.



Performance That Makes a Good Impression.

Volumetric Shrinkage

The SonicFill composite is highly-filled by weight (83.5%) and has an industry-low volumetric shrinkage of 1.6%.



Study conducted by Jeffrey Y. Thompson, NOVA University. Data available upon request.

Radiopacity

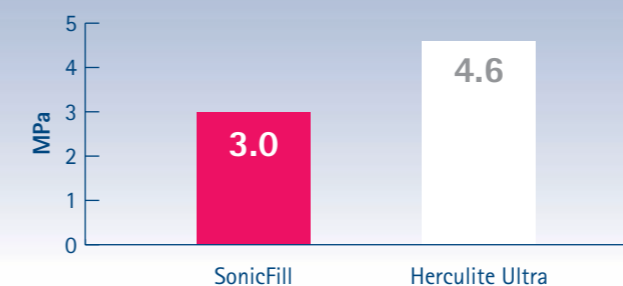
SonicFill's radiopacity is well in excess of both enamel and dentin. This X-ray illustrates its superior adaptation to challenging prep design.



Case image courtesy of Dr. Ron Jackson

Shrinkage Stress

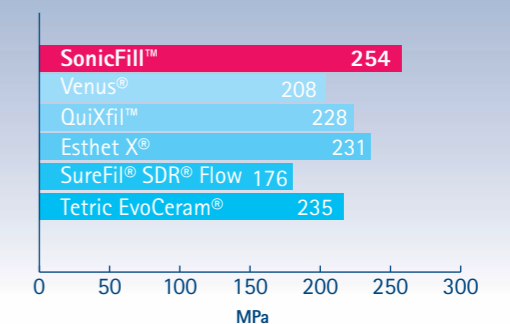
Low shrinkage resin and high filler load of SonicFill leads to lower shrinkage stress. Shrinkage stress of SonicFill was compared with Herculite Ultra, the results showed about 30% lower shrinkage stress.



Internal Kerr Data. Available upon request.

Compressive Strength

In-vitro testing have shown that SonicFill is one of the strongest composite restorative materials available.



Study conducted by Jeffrey Y. Thompson, NOVA University. Data available upon request.

The Reliable Filling System.

Predictable results with improved adaptability.

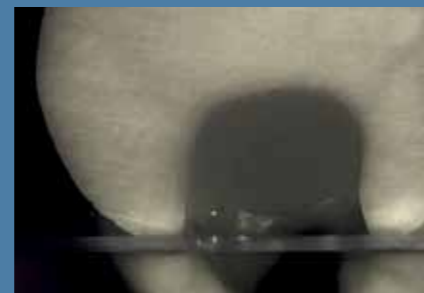
The change of viscosity and improved wettability after sonic activation of the composite enables better adaptation to the cavity walls. The composite in the phase of sculpting is highly responsive to the shear stress and allows to adapt tightly in the cavity. This leads to good predictable results for restorations done with SonicFill.

Independent in-vitro studies.

The technology of single-step restorations up to 5 mm depth has been tested and validated in independent studies in Europe and USA. The most important in-vitro results were investigating the marginal integrity on dentine and enamel and marginal integrity on enamel with different bonding agents.

Prof. Roland Frankenberger:

"When placed in a first increment of up to 5 mm, SonicFill showed comparable results to conventional resin composites when bonded with OptiBond FL."



Picture showing good adaptation of SonicFill composite without voids.

The Easy Filling System.

Easy cavity access.

Small diameter of specially designed Unidose Tip for SonicFill System allows easy access to the cavity. At the same time the optimized angle of the tip allows access to any part of the tooth.

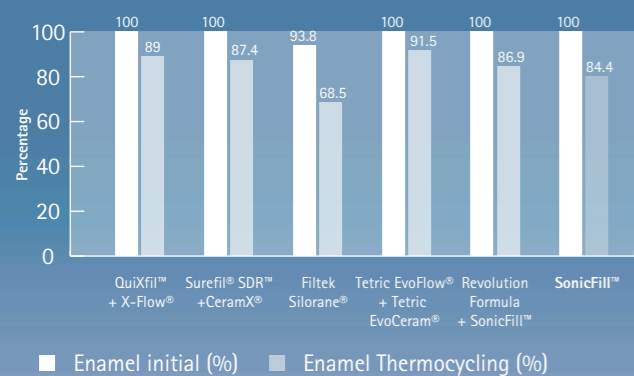


Conventional Tip:
Ø 2,5mm

SonicFill Tip:
Ø 1,5mm

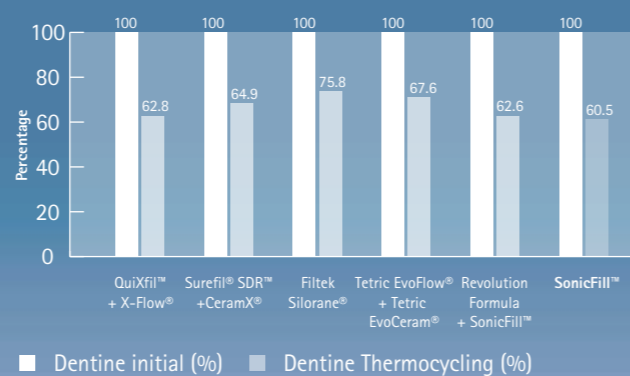


Marginal Integrity on Enamel



Study conducted by Prof. Roland Frankenberger, University of Marburg. Data available upon request.

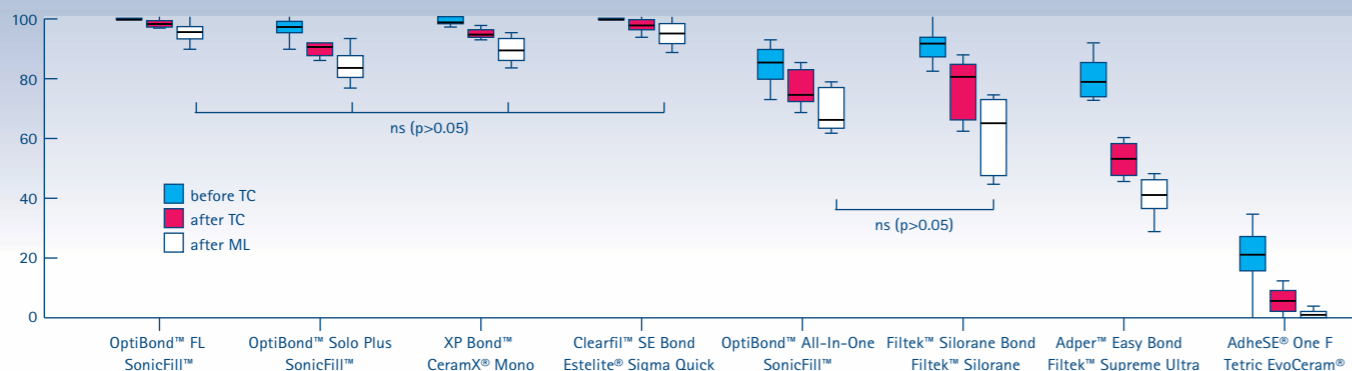
Marginal Integrity on Dentine



Study conducted by Prof. Roland Frankenberger, University of Marburg. Data available upon request.

Continuous Margin

Amount of "continuous margin" in % of the entire margin length in enamel before and after thermocycling (TC) and after mechanical loading (ML) for the tested adhesive systems in Class I cavities



Study conducted by Dr. Uwe Blunck, Charité University of Berlin. Data available upon request.

SONICfill Handpiece dispensing.

SONICfill Handpiece also allows to adjust the dispensing rate / speed with the ring switch at the bottom of the handpiece with 5 different positions. Setting 5 is the fastest speed; setting 1 is the slowest. At the same time with setting 1 the highest liquefaction is achieved as the composite is exposed to sonic activation for longer time.

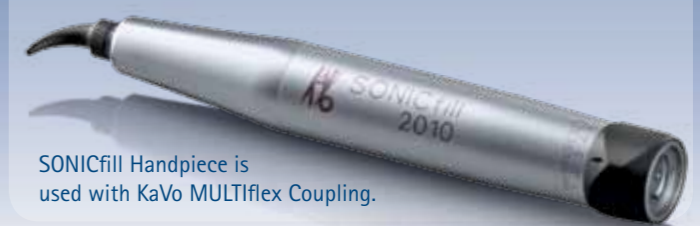


Comparison of the amount of dispensed composite in 15 s. with setting 5 and 1.

Footswitch control.



SonicFill System enables a convenient and precise delivery of amount of composite through footswitch.



SONICfill Handpiece is used with KaVo MULTiflex Coupling.

Order Information.

KaVo Part Numbers	Description	Content
1.007.7401	SonicFill System Intro Kit	1 x SONICfill Handpiece* 1 x Getting Started Pack with 5 Unidose Tips and 5 Tooth Models 10 x 0.3g SonicFill Unidose Tips A1 20 x 0.3g SonicFill Unidose Tips A2 30 x 0.3g SonicFill Unidose Tips A3 Video Guide DVD Technique Card Instruction for use SonicFill Composite Instruction for use SONICfill Handpiece
1.007.7400	SONICfill Handpiece	Handpiece* to activate SonicFill Unidose Tip Adjustable with 5 power settings



* KaVo SONICfill Handpiece with KaVo MULTiflex Connection

Kerr Part Numbers	Description	Content
35182	SonicFill Unidose Refill A1	20 x 0.3g Unidose Tips, IFU
35183	SonicFill Unidose Refill A2	20 x 0.3g Unidose Tips, IFU
35184	SonicFill Unidose Refill A3	20 x 0.3g Unidose Tips, IFU
35330	SonicFill Unidose Refill B1	20 x 0.3g Unidose Tips, IFU



For more information about the SonicFill System visit www.sonicfill.eu