

# 3rd GENERATION AFFINITY™

HYDROACTIVE IMPRESSION MATERIAL



IMPRESSIONS

## CONSISTENTLY ACCURATE IMPRESSIONS

### What is 3rd Generation Chemistry?

Most impression materials today utilize a second generation linear polymer chemistry that is very limited in terms of the manufacturer's ability to create technique specific viscosities. This type of chemistry is very dependant on filler to create different material viscosities; less filler equals a higher flow and less cured hardness material (i.e. light body). More filler creates less flow and more cured hardness, resulting in heavy body and bite registration materials. Being dependant on filler loading, most impressions made with these 2nd generation materials often result in less than ideal impressions. Often the light body is over-displaced by the more viscous heavy body, or a ridge is left at the interface of the tray material and light body. Both of these results compromise impression accuracy.

Additionally, this 2nd generation, linear polymer chemistry negatively affects cure time. Second generation impression materials have a working time of 2 minutes and a set time of 4 minutes, for a total 6 minute procedure time - which can seem like an eternity for the patient. The only way to speed up the impression procedure is to go to a fast set impression material which will reduce the procedure time by about 1.5 minutes. The working time, however, is also greatly reduced, increasing the chance of running out of working time with multiple unit impression cases.

3rd Generation **AFFINITY™ Impression Material** is unique in that it utilizes branched resin chemistry, providing far more freedom to create material features that dramatically improve your dentistry; features such as:

### Technique Designed Viscosities

**AFFINITY** is not filler dependant like previous generation systems. Its resin-based chemistry provides ideal flow to create extreme impression detail yet allows for virtually any cured hardness required. The **AFFINITY Light Body** material (Regular Flow, High Flow or Xtra Light) provides ideal flow based on your preferred technique, yet has up to a 50% higher tear strength than other impression materials. **AFFINITY** tray materials (Heavy Body and InFlex) flow slightly more than other systems, yet cure to a higher, more supportive durometer and are perfectly matched to the impression trays you use.

### More Efficient Work, Set & Procedure Times

**AFFINITY's** 3rd Generation chemistry is heat-activated and once placed completely into oral temperatures, cures faster than other impression materials and without compromising working time. **AFFINITY** regular set materials have a working time of 1:45 minutes and an intraoral cure time of 2:30 minutes. However, if you only use 30 seconds of working time and then place the tray into the patient's mouth, the cure time is still only 3:00 minutes. Intraoral temperatures create a much faster reaction time to the **AFFINITY** chemistry. **AFFINITY** Fast Set formulas have a working time of 1:10 minutes and an intraoral cure time of just 1:45 minutes.

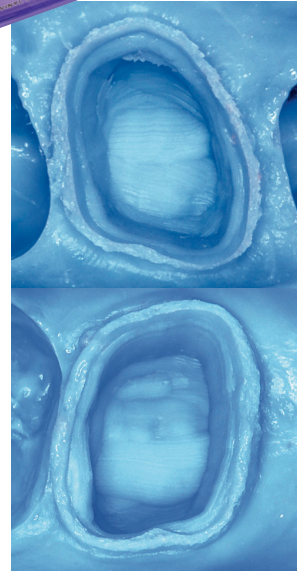
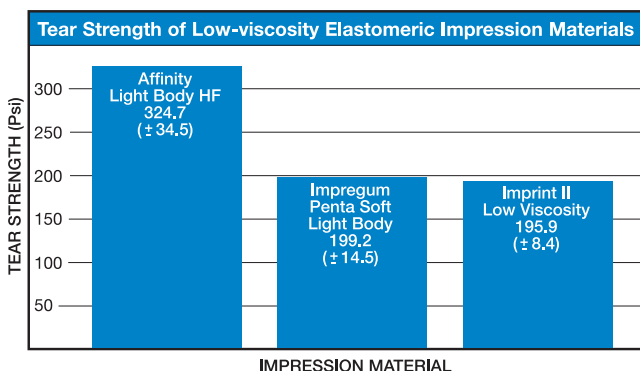


FIG 1



### Higher Tear Strength. Improved Hydroactivity. A More Complete Cure.

Unlike other materials, **AFFINITY's** branched resin chemistry utilizes 3-dimensional cross-linking which results in up to a 60% increase in tear strength as compared to many market-leading impression materials (FIG 1). The chemistry also allows the hydroactive surfactant to be grafted which gives a more even distribution of the hydrophile and results in far better performance in the presence of moisture. A grafted surfactant also means **AFFINITY** cures 100%, far better than previous generation impression materials, so dimensional stability is maximized.

**AFFINITY** represents the state of the art in impression materials, providing you with more consistently accurate impressions; we guarantee it.

Boghosian A, Lautenschlager EP. Northwestern University Feinberg School of Medicine, Chicago, IL, USA. Tear strength of low-viscosity elastomeric impression materials. Abstract presented at 32nd Annual Meeting and Exhibition of the AADR, San Antonio, TX, USA, March 12-15, 2003.  
Imprint™ II Low Viscosity is a trademark of 3M™/ESPE™. Impregum™ Penta Soft Light Body is a trademark of 3M™/ESPE™.

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3rd GENERATION  
**AFFINITY**<sup>TM</sup>  
 HYDROACTIVE IMPRESSION MATERIAL



## “Technique Designed” Working & Set Times at a Glance

AFFINITY Viscosity	LIGHT BODY HF (HIGH FLOW)		LIGHT BODY RF (REGULAR FLOW)		LIGHT BODY XL (XTRA LIGHT FLOW)	MONOPHASE	HEAVY BODY		INFLEX MAXIMUM SUPPORT TRAY MATERIAL		QUICK BITE	AFFINITY Crystal	PUTTY
	Regular Set	Fast Set	Regular Set	Fast Set			Regular Set	Fast Set	Regular Set	Fast Set			
AVAILABLE WORKING TIME	1:45 min	1:10 min	1:45 min	1:10 min	1:45 min	2:15 min	1:45 min	1:10 min	1:45 min	1:10 min	0:15 min	0:45 min	1:45** min
MINIMUM INTRAORAL SET TIME	2:30 min*	1:45 min	2:30 min*	1:45 min	2:30* min	2:45 min	2:30 min*	1:45 min	2:30 min*	1:45 min	0:45 min	1:30 min	3:15 min
MAXIMUM TOTAL CURE TIME FROM START OF MIX	4:15 min	2:55 min	4:15 min	2:55 min	4:15 min	5:00 min	4:15 min	2:55 min	4:15 min	2:55 min	1:00 min	2:15 min	5:00 min

\* 2:30 min reflects the minimum intraoral set time. Our recommendation is to allow 3:00 min for a full intraoral set.

**Please Note:**

\*\* Available working time for Putty is in addition to a 30-45 second mix time. These procedure times reflect ideal conditions. Fluctuations in temperature and humidity may reduce or extend these times. Please call with questions or concerns.

- AFFINITY Regular Set materials have a faster total cure time compared to previous generation fast set materials.
- AFFINITY Fast Set materials are recommended for single preparations only.

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