

LM

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difference

LM ErgoSense SHARP DIAMOND

Sharpen Free Micro Coating



Enjoy Sharpen Free Perio

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- Sharp Diamond instruments with multi layered micro membrane coating offer unique benefits:

SHARPEN FREE

Savings
of time & money



Long-lasting
superior sharpness

Highest rated ergonomics
with sensational grip*

Improved productivity
& clinical results

- *LM-ErgoSense instruments can be integrated with an advanced RFID chip that can be scanned and registered with the unique Dental Tracking System. Complete traceability improves patient safety and enhances material management



* (1) Sormunen E., Nevala N: Evaluation of ergonomics and usability of dental scaling instruments; Dental scaling simulation and Field study, part III. Finnish Institute of Occupational Health, LM-Instruments Oy. (2) Nevala N, Sormunen E, Remes J, Suomalainen K: Ergonomic and productivity evaluation of scaling instruments in dentistry. The Ergonomics Open Journal 2013; 6, 6-12.

Sharpen Free Micro Coating



- Multi layered micro membrane coating made using the most advanced PVD (Physical Vapor Deposition) technology
- The coating gives Sharp Diamond instruments maximal wear resistance and excellent hardness
- The coating process does not dull the cutting edge
- Completely nickel free
- Researched by Aalto University, Department of Materials Science and Engineering in Finland

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Hardness

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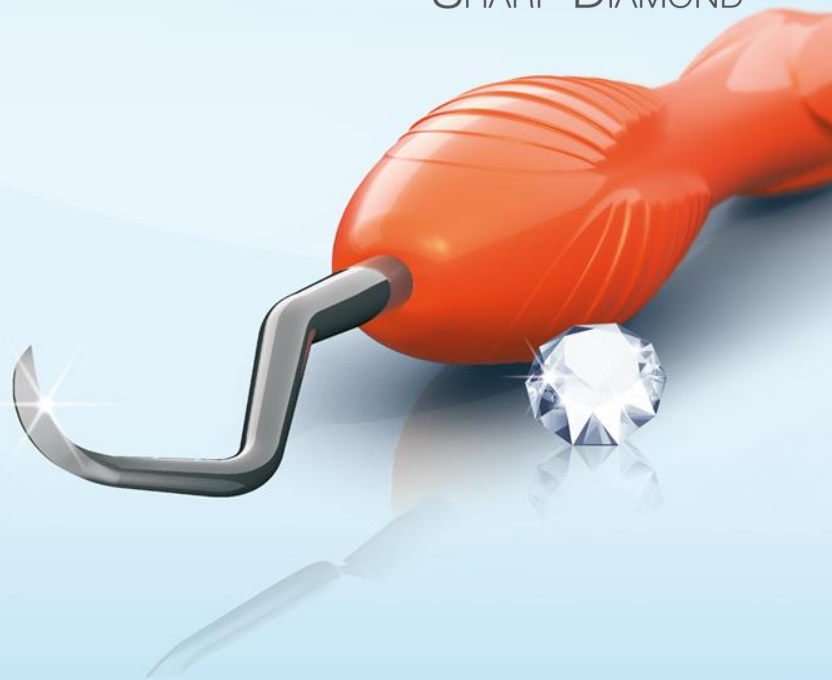
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HARDNESS

Hardness contributes to the durability of the instrument. Sharp Diamond reach hardness of over 63 on Rockwell scale.



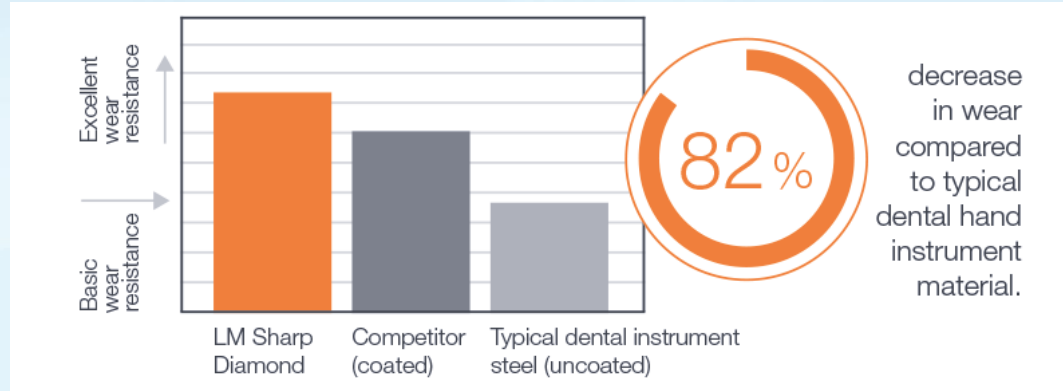
- A hard instrument is highly resistant to wear
- Sharp Diamond has the highest hardness of all coated hand instruments on the market today



Wear Resistance

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According to a comparative study made by Aalto university** the LM Sharp Diamond had the best wear resistance.

** Leppänen J. et al: The influence of PVD coatings on the wear performance of steel dental currettes. Key Engineering Materials Vol. 674 (2016), 289-295.

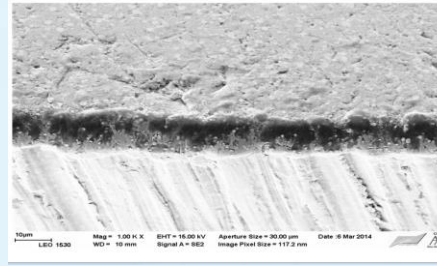
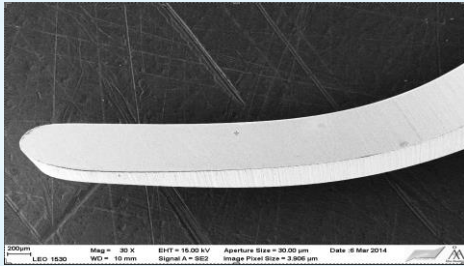
Wear Resistance

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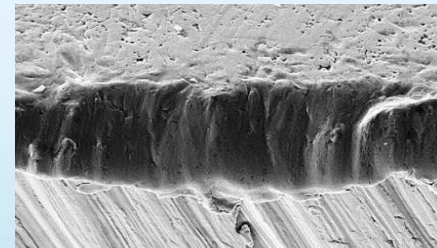
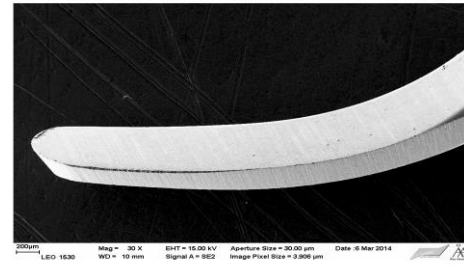
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Cutting edge of the Sharp Diamond curette and the magnification of the edge after the test.



Cutting edge of an typical non-coated curette and the magnification of the edge after the test.



*** Leppäniemi J. et al: The influence of PVD coatings on the wear performance of steel dental curettes.
Key Engineering Materials Vol. 674 (2016), 289-295.



LM ErgoSense Best in Clinical Test

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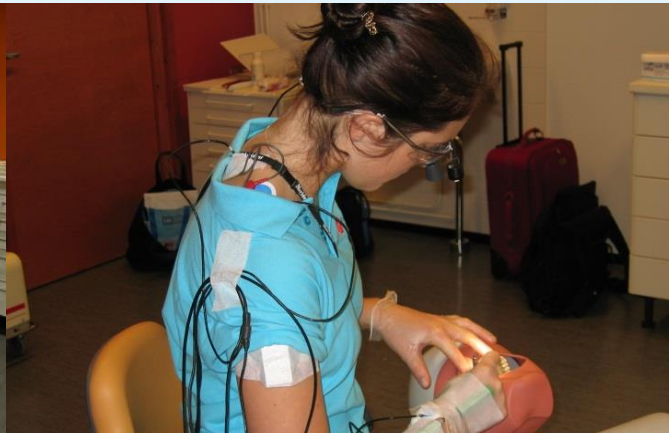
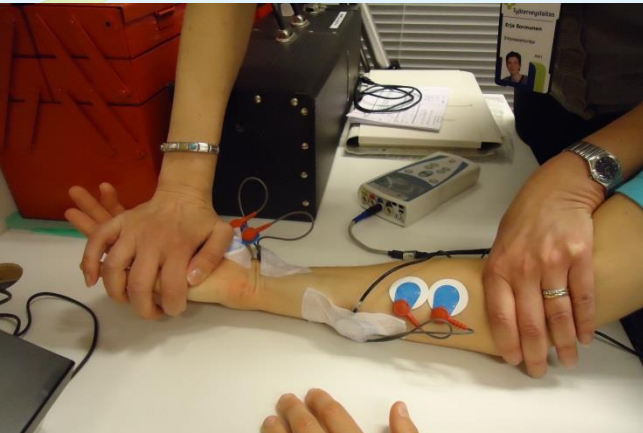
Comparative study made by the Finnish Institute of the Occupational Health

- 5 curettes (GRA 11-12) and 5 restorative instruments were tested by dental clinicians at the University of Helsinki
- Handle types by different manufacturers LM-ErgoSense (prototype), LM-ErgoMax, Hu-Friedy (both thin and thicker handle in metal), American Eagle (handle in plastic)
- Ergonomy of the instruments was evaluated by measuring the musculoskeletal strain and postures of the upper limbs
- Also the work productivity was measured
- Subjective analysis of the usability, personal preferences and sensations of musculoskeletal strain



LM ErgoSense Measurements in Clinical Test

- Scientific comparative study by FIOH (Finnish Institute of Occupational Health)
- Ergonomy of the instruments was evaluated by measuring the musculoskeletal strain and postures of the upper limbs





LM ErgoSense

Rated Best By Clinicians

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Results

- Thick, silicone coated instruments (LM-ErgoSense ja LM-ErgoMax) were rated as best periodontal instruments based on the usability characteristics and work productivity. They were the most preferred choice in regard to all 18 usability criteria used in the test.

Conclusions

- Thick, silicone coated hand instruments (diameter 12-14 mm) were best in regard to usability and work productivity. They caused lowest perceived strain in both the fingers and palm and the thumb than those with thinner instruments in plastic or metal.

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Sharp Diamond

- Sharpen free selection of 9 favorite periodontal instruments with LM-ErgoSense handle
- Mini-sized tips which gives the best benefit when sharpening is not needed
- Retain their size and structural characteristics throughout their lifetime



Unique LM Dental Tracking System

- LM-ErgoSense instruments can be integrated with RFID chips which enables the tracability of the instrument
- Readers for scanning the RFID chips
- Server software and cloud for documenting the data
- Traceability improves patient safety
- Improves asset management & cost effectiveness

