

THERMAFIL®

A RELIABLE FILLING TECHNIQUE



DENTSPLY
MAILEFER

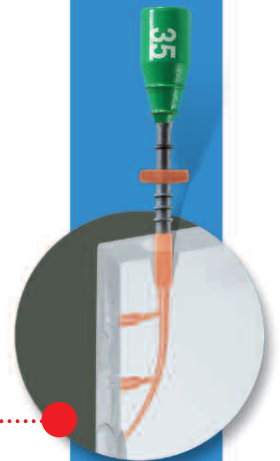
Your key to success

Benefiting from the support of more than 200 publications, **THERMAFIL®** is today the most reliable filling technique. **THERMAFIL®** will guarantee your patients a three-dimensional filling in less than half the time necessary for realising a filling using classical techniques.

Phase 1

THERMAFIL® filling procedure

To gain familiarity with the **THERMAFIL®** filling procedure, we recommend that you practice on plastic blocks (supplied with the introductory kit) and extracted teeth, before using the procedure clinically.



Phase 2

Selecting the obturator

In order to determine the size of the **THERMAFIL®** which will be used for the filling, a **VERIFIER** corresponding in size to the last instrument used up to the working length is employed to measure the size of the root canal. This **VERIFIER** must:

- Slip in easily up to the working length without force (if the **VERIFIER** does not reach the working length, increase the taper of the preparation or use a smaller size **VERIFIER**).
- Present a slight sensation of resistance (tug-back) on withdrawal (if there is no sensation of resistance on withdrawal, try a larger size **VERIFIER**).

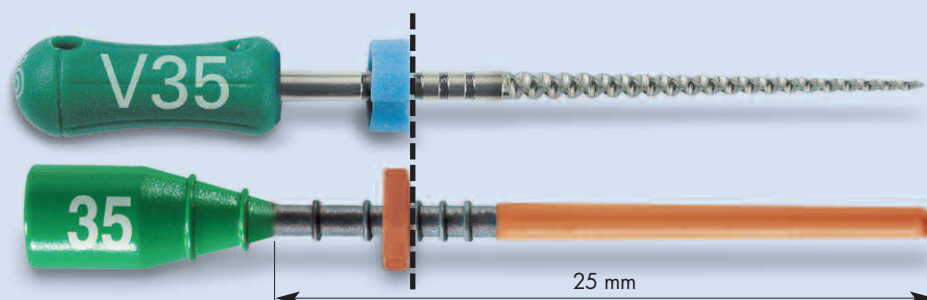


Phase 3

Selecting the obturators

Select the **THERMAFIL®** obturator corresponding to the **VERIFIER** which adapts itself passively to the working length.

The depth references and/or silicon stop **must** be used to determine the distance of the working length on the **THERMAFIL®** central plastic carrier.



Phase 4

Aseptic treatment

Disinfect the obturator in a solution of sodium hypochlorite for at least one minute, then dry in air.

Phase 5

Heating up the obturator in the *THERMAPREP[®] PLUS* oven (REF A 0176)

- a/ The silicon stop must be **below** the support.
- b/ Press the button corresponding to the size of the *THERMAFIL[®]* obturator.
- c/ Press the "Start" button on the front of the utilised support ("Left" or "Right").

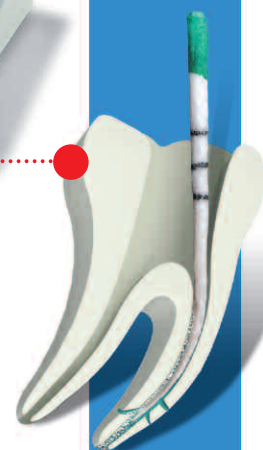


Phase 6

Drying the root canal, mixing and applying the cement

(*TOPSEAL* REF A 0900 & *PAPER POINTS* 4 % REF A 022)

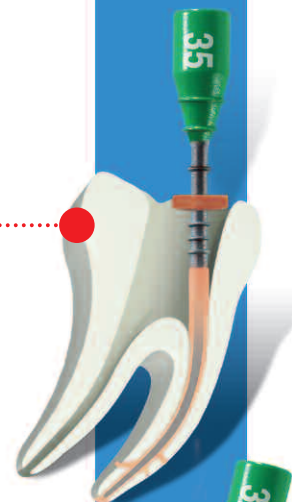
While the obturator is heating up, mix the *TOPSEAL* root canal cement. Use the sterile paper points to thoroughly dry the root canal before applying the cement. Using a sterile paper point or a file, apply a thin coating of cement over the entire working length of the root canal walls.



Phase 7

Filling the root canal(s)

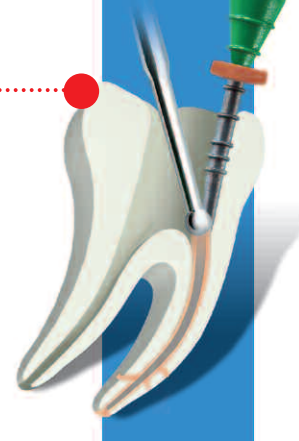
Carefully extract the obturator from its support and insert it immediately into the root canal with a slow, firm and continuous movement in the apical direction. Ensure that the movement is always in the direction of the carrier to prevent it from bending. On the insertion, the *GUTTA-PERCHA* apically precedes the carrier, thus blocking the root canal towards the apex whilst filling all the lateral root canals in a single insertion. The pressure should be maintained a few seconds after the apex has been reached. If several root canals have to be filled, use the left and right supports alternately in order to save time.



Phase 8

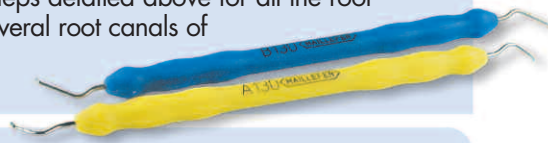
Withdrawal of the protector and shank

After radiographic confirmation that the root canal is filled up to the working length, the plastic carrier is separated using a bur *THERMA-CUT* (REF A 0050), used on a turbine (300'000 rpm) without spray.



Extracting the excess **GUTTA-PERCHA**

Using an endodontic excavator (REF B 095S), remove the surplus **GUTTA-PERCHA** which could block access to the other root canals. It is very important at this stage to use a plugger (ex: our Machtou **PLUGGER** REF A 289S) to condense the softened gutta in the coronal part around the carrier. Repeat all the steps detailed above for all the root canals of a pluri-radicular tooth. When filling several root canals of a molar, always commence with the root canal having the most difficult access.



POST SPACE Preparation



In order to eliminate the coronal part of the filling, use a "**POST SPACE BUR**" (REF A 0051) to drill the **POST SPACE**. Use a turbine or a multiplier counter-angle at a speed of 200'000 to 350'000 rpm without spray and applying a light pressure against the plastic carrier. Present the **POST SPACE BUR** in the axis of the canal so that its extremity is in contact with the coronal part of the **THERMAFIL**. Once a softened state is reached, apply an axial pressure to reach the desired length (in max. 2-3 seconds), and withdraw to avoid over-heating. The plastic carrier is then raised to the desired length. This permits penetration by the drill without force. As the **POST SPACE BUR** permits filling removal without vibration, the **POST SPACE** can be realised in the same session as the filling. Note: The **POST SPACE BUR** must penetrate easily and without excessive pressure. If the **POST SPACE BUR** does not advance in the canal, check its angle of penetration.

Removal for Retreatment

The **THERMAFIL** endodontic obturators comprise a grooved protector specially designed to assist withdrawal.

In order to withdraw the **THERMAFIL** obturator, penetrate the length of carrier with a rotating instrument – Nickel Titanium **PROFILE** (e.g.: 06/25) or **GTTM FILE** (e.g.: 06/20) – in order to release the **GUTTA-PERCHA** around the carrier. The friction produced by the rotation of the NiTi instrument will eliminate the carrier.

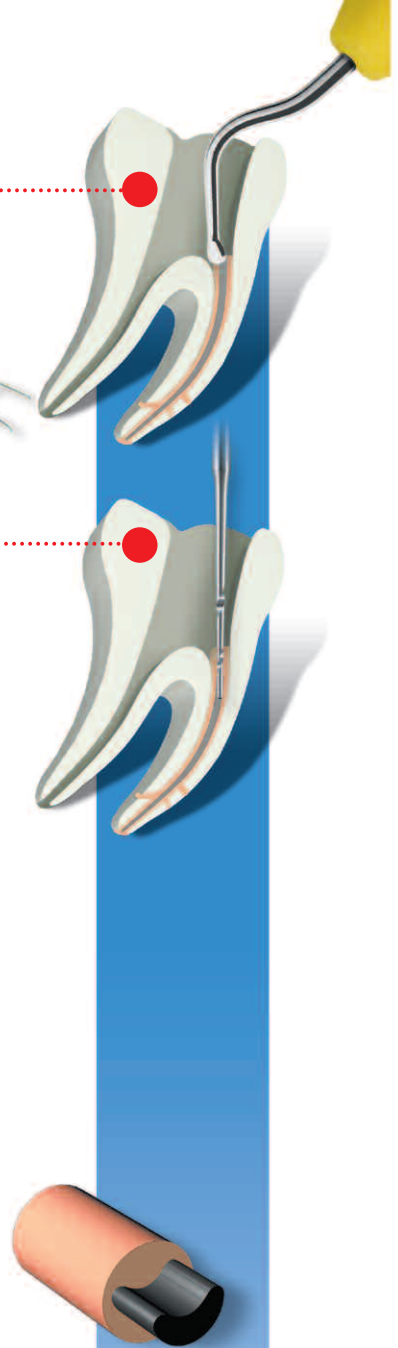
A solvent (chloroform) can be used to soften the gutta-percha in order to facilitate the penetration by the nickel titanium instrument along the carrier. The rotation speed of the NiTi instruments should be 600 to 800 revolutions/minute.

Advantages in favour of using the **THERMAFIL** filling technique:

- Three-dimensional filling of the root canal
- Excellent apical sealing of the root canal (warm **GUTTA-PERCHA** up to the apex) including lateral root canals
- Easy filling of long, curved and narrow root canals
- Time-saving
- Easy-to-use and short learning time.

Cases where the use of **THERMAFIL**, is not recommended:

- Teeth without good apical constrictions, such as: open apex, resorption etc.
- Posterior teeth which are difficult to reach; patient has limited buccal opening
- Cases where root canal(s) cannot be prepared with an apical taper of at least 0.04.



Instruments

The **THERMAFIL®** Introductory Kit contains all you need to commence realising your fillings with **THERMAFIL®**:



Introductory kit
THERMAFIL®

REF A 0169	1	40 THERMAFIL® obturators REF A 0167 + REF A 0168
	1	THERMAPREP® PLUS oven, 110 V or 220 V + guarantee card
	1	TOPSEAL
	12	nickel titanium VERIFIERS
	1	explanatory video
	1	detailed instruction manual
	5	THERMAFIL® drive blocks



THERMAFIL®

..... **THERMAPREP® PLUS** oven

REF A 0166	6x	020 - 025 - 030 - 035 - 040 045 - 050 - 055 - 060 - 070 080 - 090 - 100 - 110 - 120 130 - 140
REF A 0167	20x	4x020 + 4x025 + 4x030 4x035 + 4x040
REF A 0168	20x	3x045 + 3x050 + 3x055 3x060 + 3x070 + 2x080 2x090 + 1x100
REF A 0348	30x	020 - 025 - 030 - 035 - 040



PAPER POINTS

..... **TOPSEAL**

REF A 176A		oven, THERMAFIL® Posterior Kit, VERIFIER
REF A 022J	6x	015 - 020 - 025 - 030 - 035 040 - 045 - 060 - 090

VERIFIER

REF A 0900		
REF A 0175	6x	020 - 025 - 030 - 035 - 040 045 - 050 - 055 - 060 - 070 080 - 090 - ass. 20 à 45 ass. 50 à 90

THERMA-CUT Bur

REF A 0050	6x	010 - 012 - 014 - 016
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POST SPACE BUR

REF A 0051		005 - 007
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..... **THERMAFIL®** drive block

REF A 0174	12	blocks with 4 canals Ø 0.3
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Creativity in the Art of Dentistry

- Homogeneous three-dimensional obturation and apical sealing ability
- Superior quality filling for narrow, curved and lateral root canals
- Fast and easy to use



LATEX! Caution, this product contains natural rubber latex which may cause allergic reactions.

