

Impression Solutions

Express™ 2

VPS Impression Materials



Extremely well
balanced

3M ESPE

3M ESPE – leading impression solutions.

You + 3M ESPE =
new ideas for dentistry

Taking precision impressions is a critical step in providing high-quality restorations to patients. As the world leader in impression solutions, 3M™ ESPE™ is renowned for its dedication to quality and its innovative products. Since the introduction of the first impression materials more than 40 years ago, 3M ESPE innovations have continuously advanced impression technology.

Express™ 2 VPS Impression Material meets the requirements of dental practice and lab.

With next-generation Express 2 VPS materials, 3M ESPE offers a family of impression materials that helps you achieve outstanding accuracy on the first take and a great fit of the final restoration. Internal tests proved Express 2 materials to have the best balance of clinically relevant properties among leading VPS brands.



Another proven solution from 3M ESPE.

The comprehensive Express 2 family offers more options than ever while dentists can stay with their preferred viscosity and technique.

Convenient handling guaranteed: all Express 2 Penta™ Materials, even putty, can be automatically mixed and dispensed with the Pentamix™ System* from 3M ESPE. For maximum performance and impeccable results, the Penta materials and the Pentamix mixing unit work together perfectly. All wash materials can be automatically mixed in the 3M ESPE Garant™ Dispenser.

Products designed for the way you like to work . . .

For almost every indication and clinical situation, 3M ESPE provides the appropriate Penta Polyether or VPS impression material. To suit all dental professionals' preferences and techniques, 3M ESPE Penta materials are available in a variety of viscosities and set/working times. The VPS hand-mix versions complete the line of impression materials.

* Compatibility with other mixing devices guaranteed.

Innovation
Solution

Express™ 2 VPS Impression Materials – first-class impressions on the first take.

Express 2 VPS impression materials are the ideal foundation for precise impressions and accurately fitting restorations – saving time and enhancing comfort for dentist, dental technician and patient alike.

Designed for the 1-step and 2-step impression techniques and available in a complete range of viscosities – from putty to ultra-light body – Express 2 VPS tray and wash materials are the right choice for all your precision impressions.



1-step technique – Express™ 2 Penta™ Putty Soft combined with Express™ 2 Light Body Flow – ideal for complete reproduction of margins.

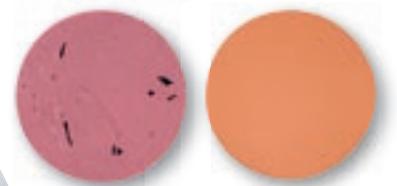


Precise impressions

Experience true putties – plus the convenience of automatic mixing.

With **Express™ 2 Penta™ Putty** and **Express 2 Penta Putty Soft**, benefit from automatic mixing and the characteristics of classical hand-mixed putty materials: at the touch of a button, the Pentamix™ System gives you homogeneous, void-free mixtures with reproducible quality – plus true putty consistency.

Especially designed for the 1-step technique, the new Express 2 Penta Putty Soft is the first hydrophilic auto-mix putty. Due to its unique hydrophilic characteristics, Express 2 Penta Putty Soft's excellent flow behaviour allows great detail reproduction and its longer setting times give you more time to work. Moreover, Express 2 Penta Putty Soft has optimised rigidity for easy removal from the mouth, enhancing patient comfort.



Void-free Express™ 2 Penta™ Putty Soft mixture out of the Pentamix™ 3 Unit (right) compared to hand-mixed putty (left).

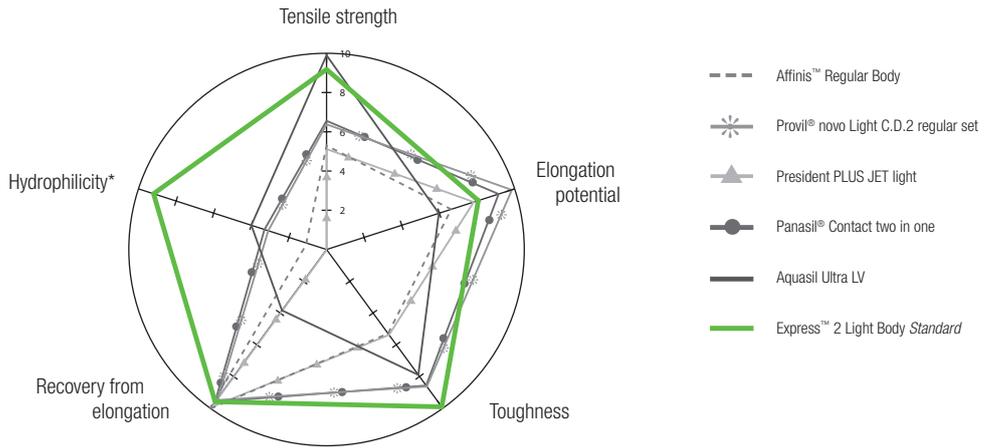
Homogeneous

Balance of properties

Best balance of properties.

Express™ 2 VPS Impression Materials excel where it really counts. Their clinically relevant properties are extraordinarily well balanced. Compared to other leading VPS products, Express 2 materials show:

- Superior **hydrophilicity** and **flow behaviour**
- Outstanding **tensile strength**
- High **elongation potential**
- Excellent **toughness** for distortion-free removal from mouth and model
- Nearly 100 % **recovery from elongation** to avoid permanent deformation



Compilation of clinically important properties: Express™ 2 Light Body Standard (green) shows the best overall performance. (Values for each property ranged from 1 = poor to 10 = excellent.)

Source: 3M ESPE internal data

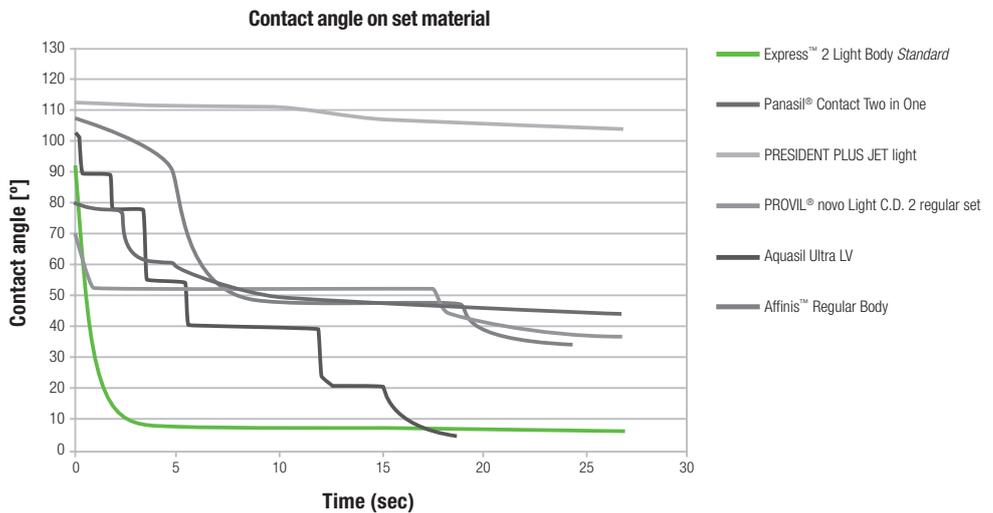
* Waterdrop contact angle on set material after 2 seconds

Great detail reproduction through superior hydrophilicity and flow behaviour.

In moist conditions, an impression material needs excellent hydrophilicity and flowability to make void-free impressions with excellent margin reproduction.

Of all VPS materials tested in internal contact angle measurement tests, Express 2 wash materials show the fastest decrease in contact angle and thus the best hydrophilicity in the unset stage, ensuring great detail reproduction – even when blood and saliva are present.

Hydrophilicity Void-free



Comparison of contact angles on set impression materials: the lower the contact angle, the better the hydrophilicity.

Source: 3M ESPE internal data

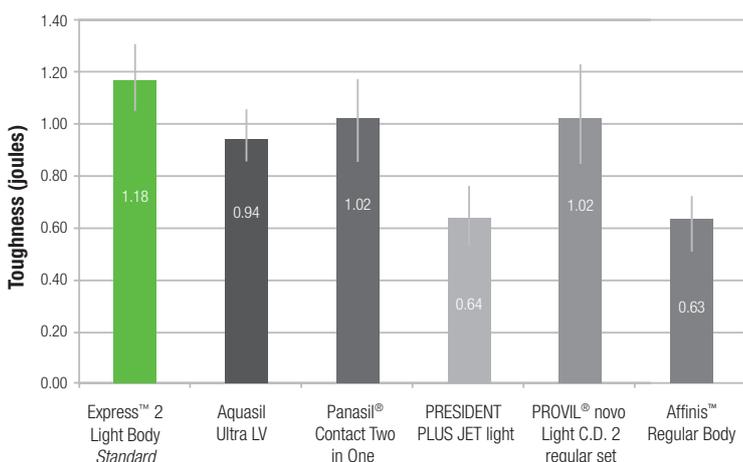
In addition, Express™ 2 Wash Materials' outstanding flow properties ensure optimal coverage of the preparation surface areas.



Flow to tooth and gingiva of Express™ 2 Light Body Flow (green) and Express™ 2 Light Body Standard (lavender) wash materials. The more flowable Express™ 2 Light Body Flow creates a very smooth surface, whereas Express™ 2 Light Standard exhibits more structure.

Distortion-free removal from the mouth due to excellent toughness.

To avoid tearing while the set impression is removed from the mouth, an impression material needs both high tensile strength and high elongation potential, allowing it to stretch. The combination of these two parameters is described as toughness. Express 2 material exhibits excellent toughness and resists tearing better than all other leading VPS brands tested. That means worry-free mouth removal and less need for costly, time-consuming retakes.



Toughness values for different VPS wash materials of the same setting version (regular) and comparable viscosity.

Source: 3M ESPE internal data

Fewer remakes thanks to recovery from deformation.

Express 2 VPS impression materials almost completely regain their original shape after elongation or compression, minimizing the risk that an impression will have to be redone.

Highly positive feedback from practitioners.

Results from a Europe-wide market survey show high overall customer satisfaction with the Express 2 VPS materials tested. When asked for the major advantages, dentists most often mentioned **precise detail reproduction, automatic mixing, easy handling and good setting time.**

79% of the participating dentists would definitely **recommend Express 2 materials to their colleagues.** Moreover, 87% indicated that their labs' rating was good to excellent.

Flowability

Toughness



» 8 out of 10 dentists would recommend Express™ 2 Materials to their colleagues. «

Express™ 2 Materials at a glance.

1 brand – 12 favourites: select your preferred materials from a great variety of viscosities, contrasting colours and different working/setting times.

Overview tray/wash materials

Product	Dispensing System	Viscosity Low High	Setting version	Working Time at 23° C min:sec	Intra-oral Setting Time min:sec
TRAY MATERIALS					
Express™ 2 Penta™ Putty Soft NEW!		Putty	Regular Set	1:30	3:30
Express™ 2 Penta™ Putty		Putty	Regular Set	1:30	3:00
Express™ 2 Penta™ H		Heavy Body	Regular Set	2:00	3:30
Express™ 2 Penta™ H Universal Quick		Heavy Body	Fast Set	1:30	2:30
Express™ 2 Penta™ H Quick		Heavy Body	Fast Set	1:15	2:30
WASH MATERIALS					
Express™ 2 Ultra-Light Body Quick			Fast Set	1:30	2:30
Express™ 2 Light Body Flow			Regular Set	2:00	3:30
Express™ 2 Light Body Flow Quick			Fast Set	1:30	2:30
Express™ 2 Light Body Standard			Regular Set	2:00	3:30
Express™ 2 Light Body Standard Quick			Fast Set	1:30	2:30
Express™ 2 Regular Body			Regular Set	2:00	3:30
Express™ 2 Regular Body Quick			Fast Set	1:30	2:30

Overview according to technique

Impression Technique	Tray Material	Recommended Wash Materials	Wash Material
Express™ 2 Penta™ Putty Soft ▶ first hydrophilic auto-mix putty			
1-step technique NEW!		Express™ 2 Light Body Flow ▶ offers great flow	
		Express™ 2 Regular Body ▶ stays very well at tooth	
Express™ 2 Penta™ Putty ▶ putty consistency			
2-step technique		Express™ 2 Ultra-Light Body Quick ▶ generates very thin layers	
		Express™ 2 Light Body Flow Quick ▶ offers great flow	
Express™ 2 Penta™ H ▶ hydrophilic heavy body			
1-step technique		Express™ 2 Light Body Flow ▶ offers great flow	
		Express™ 2 Light Body Standard ▶ stays very well at tooth	
Express™ 2 Penta™ H Universal Quick ▶ fast setting heavy body with excellent carving properties			
2-step technique		Express™ 2 Light Body Flow Quick ▶ offers great flow	
1-step technique		Express™ 2 Light Body Standard Quick ▶ stays very well at tooth	
Express™ 2 Penta™ H Quick ▶ fast setting hydrophilic heavy body			
1-step technique		Express™ 2 Light Body Flow Quick ▶ offers great flow	
		Express™ 2 Light Body Standard Quick ▶ stays very well at tooth	



The Express™ 2 Material guide helps to choose the right materials.

Other impression system products.

Pentamix™ 3 Automatic Mixing Unit – Enhanced mixing accuracy and convenience

Features

- Dispenses 3M ESPE Penta™ Materials **twice as fast** as Pentamix™ 2 and faster than any other automatic mixer
- **Saves valuable counter space** with smallest footprint on the market
- **Easier and more convenient** handling
- **Suitable for polyether, VPS and alginate replacement materials**

Benefits

- **Time-saving** work procedure
- **Homogeneous, void-free mixtures** of reproducible quality
- **Direct and hygienic filling** of tray and syringe
- **No wastage of material** due to exact dosing
- **More efficient workflow** and higher productivity

Impregum™ Polyether Impression Material – Ideal for the monophasic technique

Features

- **Outstanding initial hydrophilicity** in moist environments
- **Excellent flow properties**
- **Unique “snap-set” behaviour**
- **“Quick” material cuts working and setting times** significantly
- **Fresh minty taste** and **easier removal** from the mouth

Benefits

- **Precise and void-free impressions**
- **First-rate detail reproduction**
- **Consistent flow behaviour** during the working phase and **less distortions**
- **Greater patient comfort**

Indications Impregum™ Polyether Impression Material:

- Crown and bridge impressions
- Inlay and onlay impressions
- Functional impressions
- Implant impressions

Position™ VPS Alginate Replacement – Highest convenience for preliminary impressions

Features

- **High accuracy**
- **Elastic recovery**
- **High dimensional stability**
- **Fast working and setting times** at room temperature
- **Completely submersible in disinfectant solution**

Benefits

- **High impression precision**
- **Less distortions**
- **Suitable for multiple pouring** plus no need of immediate casting
- **Time savings**
- **Easy and thorough disinfection**

Indications Position™ VPS Alginate Replacement:

- Preliminary impressions
- Impressions for temporary restorations
- Opposing dentition impressions
- Study model impressions
- Impressions for orthodontic models
- Impressions for fabrication of splints/mouthguards



Ordering Information

Item No. Product Information

Trial & Intro Kits

36865	Express™ 2 Penta™ Putty Soft Trial Kit 1 base paste – 300 ml, 1 catalyst – 60 ml, 1 Express™ 2 Regular Body cartridge – 50 ml, 1 information for use
36818	Express™ 2 Penta™ Putty Trial Kit 1 base paste – 300 ml, 1 catalyst – 60 ml, 1 Express™ 2 Light Body Flow Quick cartridge – 50 ml, 1 information for use
P36861	For Pentamix™ 3: Express™ 2 Penta™ Putty Soft Intro Kit 1 base paste – 300 ml, 1 catalyst – 60 ml, 1 Express™ 2 Penta™ Putty Soft cartridge, 10 Penta™ Mixing Tips red, 1 Express™ 2 Light Body Flow cartridge – 50 ml, 1 Express™ 2 Regular Body cartridge – 50 ml, 10 Garant™ Mixing Tips yellow, 10 Garant™ Intra-Oral Tips yellow, 1 VPS tray adhesive, 1 technique card, 1 information for use
36875	For Pentamix™ 2: Express™ 2 Penta™ Putty Soft Intro Kit Kit contents see item no. P36861
P36815	For Pentamix™ 3: Express™ 2 Penta™ Putty Intro Kit 1 base paste – 300 ml, 1 catalyst – 60 ml, 1 Express™ 2 Penta™ Putty cartridge, 10 Penta™ Mixing Tips red, 1 Express™ 2 Ultra-Light Body Quick cartridge – 50 ml, 1 Express™ 2 Light Body Flow Quick cartridge – 50 ml, 10 Garant™ Mixing Tips yellow, 10 Garant™ Intra-Oral Tips yellow, 1 VPS tray adhesive, 1 technique card, 1 information for use
36815	For Pentamix™ 2: Express™ 2 Penta™ Putty Intro Kit Kit contents see item no. P36815
P36807	For Pentamix™ 3: Express™ 2 Penta™ H Intro Kit 1 base paste – 300 ml, 1 catalyst – 60 ml, 1 Express™ 2 Penta™ H cartridge, 10 Penta™ Mixing Tips red, 1 Express™ 2 Light Body Flow cartridge – 50 ml, 1 Express™ 2 Light Body Standard cartridge – 50 ml, 10 Garant™ Mixing Tips yellow, 10 Garant™ Intra-oral Tips yellow, 1 VPS tray adhesive, 1 technique card, 1 information for use
36807	For Pentamix™ 2: Express™ 2 Penta™ H Intro Kit Kit contents see item no. P36807
P36809	For Pentamix™ 3: Express™ 2 Penta™ H Quick Intro Kit 1 base paste – 300 ml, 1 catalyst – 60 ml, 1 Express™ 2 Penta™ H Quick cartridge, 10 Penta™ Mixing Tips red, 1 Express™ 2 Light Body Flow Quick cartridge – 50 ml, 1 Express™ 2 Light Body Standard Quick cartridge – 50 ml, 10 Garant™ Mixing Tips yellow, 10 Garant™ Intra-oral Tips yellow, 1 VPS tray adhesive, 1 technique card, 1 information for use
36809	For Pentamix™ 2: Express™ 2 Penta™ H Quick Intro Kit Kit contents see item no. P36809
P36837	For Pentamix™ 3: Express™ 2 Penta™ H Universal Quick Intro Kit 1 base paste – 300 ml, 1 catalyst – 60 ml, 1 Express™ 2 Penta™ H Universal Quick cartridge, 10 Penta™ Mixing Tips red, 1 Express™ 2 Light Body Flow Quick cartridge – 50 ml, 1 Express™ 2 Light Body Standard Quick cartridge – 50 ml, 10 Garant™ Mixing Tips yellow, 10 Garant™ Intra-oral Tips yellow, 1 VPS tray adhesive, 1 technique card, 1 information for use
36837	For Pentamix™ 2: Express™ 2 Penta™ H Universal Quick Intro Kit Kit contents see item no. P36837

Item No. Product Information

Refills – tray & wash materials

36862	Express™ 2 Penta™ Putty Soft Refill 2 base pastes – 300 ml, 2 catalysts – 60 ml, 1 information for use
36816	Express™ 2 Penta™ Putty Refill 2 base pastes – 300 ml, 2 catalysts – 60 ml, 1 information for use
36808	Express™ 2 Penta™ H Refill 2 base pastes – 300 ml, 2 catalysts – 60 ml, 1 information for use
36810	Express™ 2 Penta™ H Quick Refill 2 base pastes – 300 ml, 2 catalysts – 60 ml, 1 information for use
36838	Express™ 2 Penta™ H Universal Quick Refill 2 base pastes – 300 ml, 2 catalysts – 60 ml, 1 information for use
36811	Express™ 2 Light Body Flow Refill 4 Express™ 2 Light Body Flow cartridges – 50 ml, 10 Garant™ Mixing Tips yellow, 1 information for use
36812	Express™ 2 Light Body Flow Quick Refill 4 Express™ 2 Light Body Flow Quick cartridges – 50 ml, 10 Garant™ Mixing Tips yellow, 1 information for use
36813	Express™ 2 Light Body Standard Refill 4 Express™ 2 Light Body Standard cartridges – 50 ml, 10 Garant™ Mixing Tips yellow, 1 information for use
36814	Express™ 2 Light Body Standard Quick Refill 4 Express™ 2 Light Body Standard Quick cartridges – 50 ml, 10 Garant™ Mixing Tips yellow, 1 information for use
36817	Express™ 2 Ultra-Light Body Quick Refill 4 Express™ 2 Ultra-Light Body Quick cartridges – 50 ml, 10 Garant™ Mixing Tips yellow, 1 information for use
36957	Express™ 2 Regular Body Refill 4 Express™ 2 Regular Body cartridges – 50 ml, 10 Garant™ Mixing Tips yellow, 1 information for use
36958	Express™ 2 Regular Body Quick Refill 4 Express™ 2 Regular Body Quick cartridges – 50 ml, 10 Garant™ Mixing Tips yellow, 1 information for use

Cartridges

P3815	For Pentamix™ 3: Express™ 2 Penta™ Putty Soft Cartridge
77815	For Pentamix™ 2: Express™ 2 Penta™ Putty Soft Cartridge
P3813	For Pentamix™ 3: Express™ 2 Penta™ Putty Cartridge
77813	For Pentamix™ 2: Express™ 2 Penta™ Putty Cartridge
P3811	For Pentamix™ 3: Express™ 2 Penta™ H Cartridge
77811	For Pentamix™ 2: Express™ 2 Penta™ H Cartridge
P3812	For Pentamix™ 3: Express™ 2 Penta™ H Quick Cartridge
77812	For Pentamix™ 2: Express™ 2 Penta™ H Quick Cartridge
P3814	For Pentamix™ 3: Express™ 2 Penta™ H Universal Quick Cartridge
77814	For Pentamix™ 2: Express™ 2 Penta™ H Universal Quick Cartridge



Our Expertise™ guidebooks

Impressioning Trouble Shooting Guide & Compendium

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You + 3M ESPE =
new ideas for dentistry

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