

Aquasil® Ultra+  
Smart Wetting® impression material

Now with study results and  
in the new cartridge delivery  
system.

No compromise.

THE DENTAL  
SOLUTIONS  
COMPANY™

 Dentsply  
Sirona

# HIGH HYDROPHILICITY AND TEAR STRENGTH

**Do not compromise:** Aquasil® Ultra+ impression material delivers the unique combination of industry-leading intraoral hydrophilicity and reduces the risk of tears when you need it most – at the thinnest thicknesses while removing it from the mouth.

- High hydrophilicity for precise impressions
- High tear strength for more reliability
- Various options for setting times and application for better clinical results
- Pleasant mint flavor for greater patient comfort
- High flowability to form precise preparation margins
- Low removal forces for comfortable removal of the impression
- High dimensional stability to minimize the risk of distortions

74 % of dentists want a material that is suitable for all clinical indications. Not just for the easy indications.<sup>1</sup>

Tears and voids at the preparation margins are the most common impression errors.<sup>2</sup>

<sup>1</sup> Data on request.

## Ideal processing and setting times

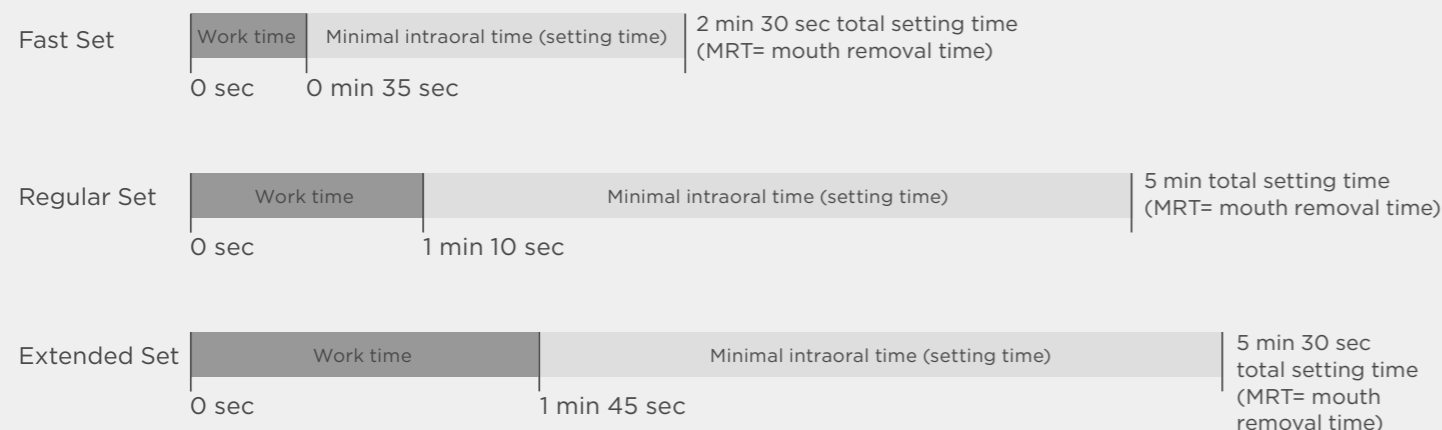
Exceeding the work time of your impression material can lead to distortion, drag, and pulls.

Aquasil® Ultra+ provides long, clearly labeled intraoral work times so you don't need to guess how much time you have while working on your patients.

**Fast Set** ensures speed without compromising the tear strength (e.g., for single-unit restorations).

**Regular Set** gives you a longer time frame in more complicated cases (e.g., for multi-unit restorations).

**Extended Set** allows for an extra long processing time and intraoral time (e.g., for implants).



# HIGH HYDROPHILICITY



**Hydrophilicity where it counts, intraorally**  
Hydrophilicity plays an important part, especially for the intraoral use of an impression material. Aquasil Ultra+ has been shown to have excellent hydrophilicity in comparison with the competition. Read more in the new study results.<sup>1</sup>

**Leading intraoral hydrophilicity** – the material is designed to avoid trapping fluid from the moment it is syringed in a moist, humid environment, helping alleviate voids and bubbles at or near the margin.

**Leading cured-film hydrophilicity** – the material continues to work well with moisture after it leaves your office, delivering accuracy at the lab to deliver properly fitting final restorations.

**Extremely low contact angle before the material sets** – allows for a precise impression even with moisture present.

## WATER DROPLET TEST ON MATERIAL THAT HAS NOT SET



FLEXITIME<sup>2</sup>  
55°

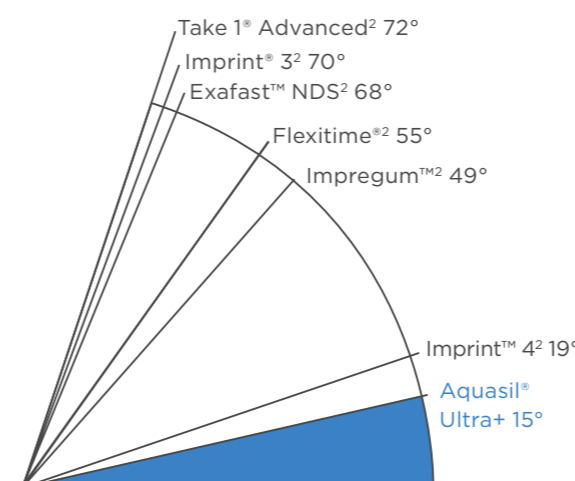


IMPREGUM<sup>2</sup>  
49°



AQUASIL® ULTRA+  
15°

## High intraoral hydrophilicity



Intraorale Hydrophilie (2" @80 % RH)	
Aquasil® Ultra+	15°
Imprint™ 4 <sup>2</sup>	19°
Take 1® Advanced™ <sup>2</sup>	72°
Exafast™ NDS <sup>2</sup>	68°
Flexitime® <sup>2</sup>	55°
Imprint™ 3 <sup>2</sup>	70°
Impregum™ <sup>2</sup>	49°

<sup>1</sup> Huettig F, Klink A, Kohler A, Mutschler M, Rupp F. Flowability, Tear Strength, and Hydrophilicity of Current Elastomers for Dental Impressions. Materials (Basel, Switzerland). 2021 Jun;14(11). DOI:

<sup>2</sup> Not a registered trademark of Dentsply Sirona, Inc.

# HIGH TEAR STRENGTH

Intraoral tear strength due to polyfunctional molecules

Aquasil Ultra+ has been shown to have outstanding tear strength in comparison with the competition. Read more in the new study results.<sup>1</sup>



## The advantages of Aquasil® Ultra+

**Leading intraoral tear strength<sup>2</sup>** – the margins remain intact when removing the impression and material is not left in the sulcus.

**Leading tear strength after 24 hours** – the material retains tear strength. This increases the accuracy of the model in the lab and of the final restoration.

## TEAR STRENGTH TEST



## Why so tear resistant?



Our patented chemistry ensures chemical connections occur through polyfunctional bonds, or branching. This allows the material to be strong even at the thinnest cross-sections.



Impression materials such as polyether, traditional A-silicones and C-silicones rely on only linear chemical bonds. This limits their ability to produce high tear strength.

<sup>1</sup> Dipl.-Ing. Stefan Rues, Dorothee Ruckes, BSc, Priv.-Doz. Dr. Wolfgang Bömicke, MSc, In-vitro dimensional accuracy of polyvinyl siloxane [Aquasil Ultra+] and polyether impression materials, Dental Materials Section (Heidelberg, Germany), 2019 Mar;06. When measuring the dimensional stability, the differences were determined and compared immediately after impression taking and after a specified time.

<sup>2</sup> Data on request.

<sup>3</sup> Not a registered trademark of Dentsply Sirona, Inc.

# STUDY RESULTS

## Benefits of Aquasil Ultra+ found in studies:

**High flowability** – the high flowability makes it possible to form precise preparation margins.

**Lower removal force** – low removal forces are more comfortable for the patient when removing the impression. The risk of tearing is also reduced.

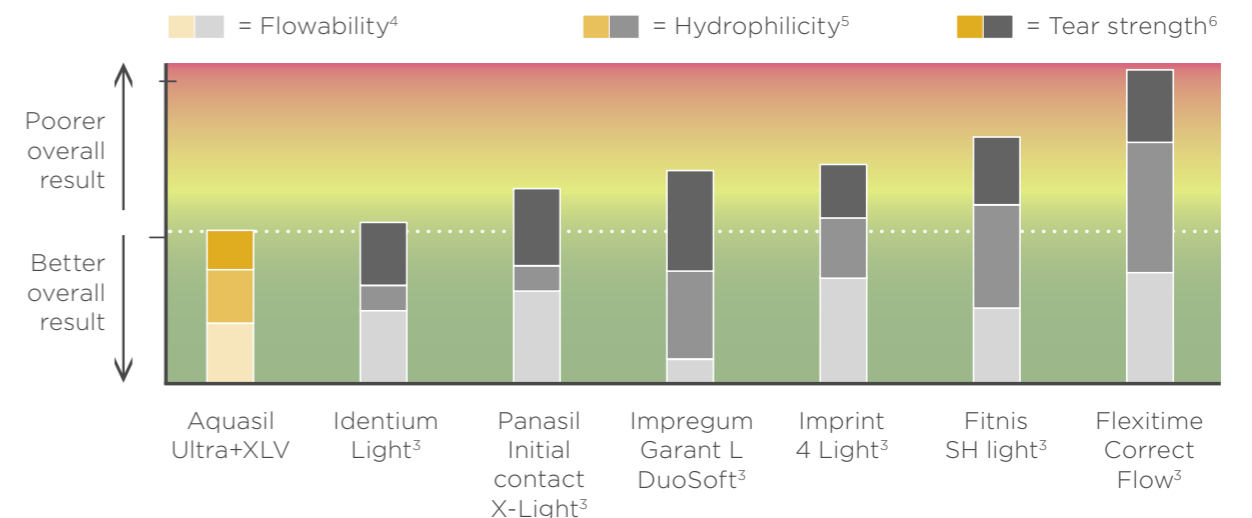
**High dimensional stability** – the high dimensional stability means a lower risk of distortion. More accurate models can be made in the lab from these impressions.



## High tear strength, hydrophilicity, and flowability

The combination of these three properties is necessary for a high-quality impression. A study conducted by the University of Tübingen (Germany) for Dentsply Sirona proves this for Aquasil Ultra+.<sup>2</sup>

The table shows the results of the study by the University of Tübingen (Germany). A small bar stands for a better result. Overall, Aquasil Ultra+ had the best results.<sup>2</sup>



## Removal force and dimensional stability

The force when removing impressions is twice as high for polyether as for Aquasil Ultra+. For dimensional stability, there are no significant differences between Aquasil Ultra+ and polyether.<sup>7</sup>



<sup>1</sup> Data available on request.

<sup>2</sup> Huettig F, Klink A, Kohler A, Mutschler M, Rupp F. Flowability, Tear Strength, and Hydrophilicity of Current Elastomers for Dental Impressions. Materials (Basel, Switzerland). 2021 Jun;14(11). DOI: 10.3390/ma14112994.

<sup>3</sup> Not a registered trademark of Dentsply Sirona, Inc.

<sup>4</sup> Flowability was measured using the shark fin test. The values of the impression materials were measured at 20, 50, and 80 seconds after initial mixing. Data available on request.

<sup>5</sup> The wetting properties of the impression materials were measured on material surfaces that were set and not yet set. The water contact angle was measured 20, 50, 80, and 600 seconds after mixing at 22 °C and 80 % relative humidity in a climatic chamber. Data available on request.

<sup>6</sup> The tear strength of the impression materials was tested with the "S2 dumbbell test" according to DIN 53504:2017. Data available on request.

<sup>7</sup> Dipl.-Ing. Stefan Rues, Dorothee Ruckes, BSc, Priv.-Doz. Dr. Wolfgang Bömicke, MSc, In-vitro dimensional accuracy of polyvinyl siloxane [Aquasil Ultra+] and polyether impression materials, Dental Materials Section (Heidelberg, Germany), 2019 Mar;06. When measuring the dimensional stability, the differences were determined and compared immediately after impression taking and after a specified time.

LESS MATERIAL WASTE.  
 BETTER MIXING QUALITY.  
 NEW LEVEL OF SIMPLICITY.<sup>1</sup>



**New  
 cartridge and  
 mixing tip  
 system**

# ORDERING INFORMATION

A complete system for all techniques and indications

	Mono-phase technique	Double-mix technique	Putty-wash technique	
Wash materials		<b>Aquasil® Ultra+ XLV</b>		Extra low-viscosity wash material <b>50 mL cartridges</b> 4 x 50 mL cartridges 12 mixing tips 12 intraoral tips Fast Set <b>678670</b> Regular Set <b>678668</b> Extended Set <b>678701</b>
		<b>Aquasil® Ultra+ LV</b>		Low-viscosity wash material <b>50 mL cartridges</b> 4 x 50 mL cartridges 12 mixing tips 12 intraoral tips Fast Set <b>678672</b> Regular Set <b>678671</b>
Tray materials		<b>Aquasil® Ultra+ Medium*</b>		Medium-viscosity tray material <b>50 mL cartridges</b> 4 x 50 mL cartridges 12 mixing tips Fast Set <b>678674</b> Regular Set <b>678673</b>
		<b>Aquasil® Ultra+ Heavy</b>		High viscosity tray material <b>50 ml cartridges</b> 4 x 50 ml cartridges 12 x mixing tips Fast Set <b>678676</b> Regular Set <b>678675</b> Extended Set <b>678703</b>
		<b>Aquasil® Ultra+ Soft Putty</b>		High-viscosity, kneadable tray material <b>Hand mix</b> 1 x 450 mL catalyst 1 x 450 mL base 2 measuring spoons Fast Set <b>678620</b> ECO Pack <b>678623</b> (4x 450mL catalyst, 4x 450mL base)
		<b>Aquasil® Ultra+ Hard Putty</b>		Extremely high-viscosity, kneadable tray material <b>Hand mix</b> 1 x 450 mL catalyst 1 x 450 mL base 2 measuring spoons Regular Set <b>678621</b>
				<b>DECA™ cartridges</b> 2 x 380 mL DECA™ cartridges 20 mixing tips Fast Set <b>678697</b> Regular Set <b>678682</b>
				<b>DECA™ cartridges</b> 2 x 380 ml DECA™ cartridges 20 x mixing tips Fast Set <b>678684</b> Regular Set <b>678686</b> Extended Set <b>678704</b>
				<b>DECA™ cartridges</b> 2 x 380 mL DECA™ cartridges 10 mixing tips Regular Set <b>678622</b>

\* For monophasic impressions, Aquasil® Ultra+ Medium is used as wash and tray material.

## Mixing tips

### For wash material

#### Red mixing tips

For 50 mL cartridges  
**Aquasil® Ultra+ XLV**  
**Aquasil® Ultra+ LV**  
 48 mixing tips  
**778215M**



#### Red intraoral tips

For 50 mL cartridges  
**Aquasil® Ultra+ XLV**  
**Aquasil® Ultra+ LV**  
 100 intraoral tips  
**626383**



### For tray materials

#### Blue mixing tips

For 50 mL cartridges  
**Aquasil® Ultra+ Medium**  
**Aquasil® Ultra+ Heavy**  
 48 mixing tips  
**778213M**



#### Clear intraoral tips

For 50 mL cartridges  
**Aquasil® Ultra+ Medium**  
 100 intraoral tips  
**626382**



#### DECA™ mixing tips

Für DECA™ tridges  
**Aquasil® Ultra+ Medium**  
**Aquasil® Ultra+ Heavy**  
**Aquasil® Ultra+ Soft Putty**  
 45 mixing tips  
**778951M**



<sup>1</sup> Compared to previous cartridge and mixing tip systems from Dentsply Sirona.

<sup>2</sup> In the comparison of Dentsply Sirona low-viscosity impression material in the new red mixing tip with the old teal mixing tip.

**Dentsply Sirona**

[www.dentsplysirona.com](http://www.dentsplysirona.com)

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