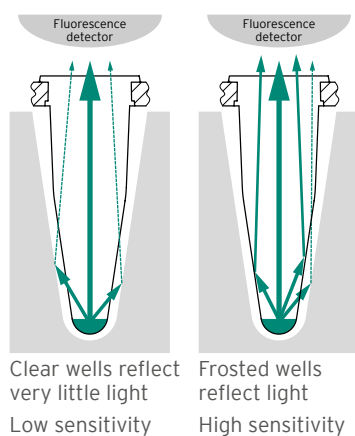


# FrameStar® qPCR Plates with frosted wells

Optical plate, optimised for use with ABI®/Life Technologies® instruments

Reflection from frosted wells increases sensitivity



## Accurate – Sensitive – Consistent

- High performance 2-component plates (FrameStar®)  
Significant reduction of evaporation enabling high performance, low volume PCR and qPCR
- Available in standard 96well, fast 96well, and 384well plate styles  
Tailor-made for ABI® / Life Technologies® qPCR instruments
- Frosted wells maximise reflection of light  
Higher signal intensity with improved reproducibility, compared to clear wells

# FrameStar® qPCR Plates with frosted wells

Well colour influences the performance of PCR plates in real time applications. Whilst clear wells are best for sample visibility, white wells lead to improved qPCR results. White wells increase the signal to noise ratio, by maximising the reflection of light, and this leads to improved sensitivity and reproducibility on most qPCR instruments. However, white well PCR plates may lead to software related problems with some ABI®/Life Technologies® cyclers. For this reason the manufacturer recommends the use of plates with frosted wells, as a compromise solution. Although frosting does not provide the same sensitivity as white wells, readings are still considerably higher than those achieved with standard clear wells.

With the launch of 4titude's frosted plate range for ABI®/Life Technologies® instruments, customers can now benefit from the many advantages of the FrameStar® design. FrameStar® plate wells give equivalent performance to the ABI® MicroAmp® optical range with overall plate performance equivalent to the superior ABI® MicroAmp® EnduraPlate® optical plate range.

## Features

- **Frosted wells** – More consistent qPCR results and increased signal intensities
- **Less variability between wells** – higher reproducibility – Impurities, or drill marks in the cycler block result in differing levels of reflection, affecting the consistency of results when using clear wells
- **Comparable signal levels with ABI®/Life Technologies® plates** – No recalibration required
- **Multiple formats** – Tailor-made to fit all ABI®/Life Technologies® instruments
- **High performance 2-component design** – Minimised evaporation enabling high performance, low volume PCR and qPCR
- **Polycarbonate frame** – Supreme flatness, ideal for automation
- **Thin polypropylene tubes** – Rapid temperature transfer, fast amplification, low bind
- **Cleanroom produced** – certified RNase, DNase, Human Genomic DNA free
- **Custom barcoding options available** – Choose your code and position on the plate
- **Certificates of analysis available**

### Ordering Information

Code	Description	Quantity
4ti-0772	FrameStar® 96 well semi-skirted PCR plate, frosted wells, clear frame, <i>to fit standard 0.2ml blocks</i>	50 plates
4ti-0912	FrameStar® FastPlate 96 well semi-skirted PCR plate, frosted wells, clear frame, <i>to fit 0.1ml Fast blocks</i>	50 plates
4ti-0387	FrameStar® 384 well PCR plate, frosted wells, clear frame, <i>to fit 384well blocks</i>	50 plates

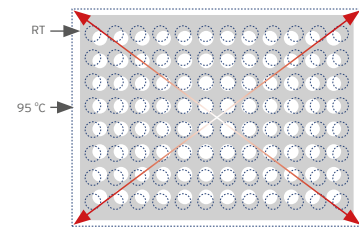
### Related adhesive seals

4ti-0560	qPCR Seal, <i>equivalent to ABI® MicroAmp® optical adhesive film</i>	100 sheets
4ti-0565	Q-Stick™ qPCR Seal	100 sheets

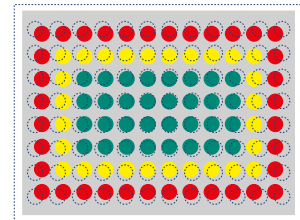
4titude® also offers a broad range of heat seals and strip caps perfectly suitable for qPCR.

Trademarks: ABI, Life Technologies, MicroAmp and Veriti are registered trademarks of the Life Technologies Corporation. EnduraPlate, ViiA and QuantStudio are trademarks of the Life Technologies Corporation.

## FrameStar® benefits



Standard single mould polypropylene plates, such as the ABI® MicroAmp® optical plates, expand by up to 2mm during thermal cycling. This leads to the movement of wells away from the plate centre during heating and back to their original position during cooling. This movement is most significant in corner positions and outer rows.



The constant movement of the wells, during cycling, against a seal or caps (held at a constant temperature by the heated lid) will disrupt the seal. This will lead to evaporation, seen mostly in the outer rows (red) where movement of wells is at its greatest.

## Plate compatibility

Compatible with all ABI® instrumentation including:

- ViiA™ 7 series
- QuantStudio™ series
- Veriti® series
- ABI® standard Thermal cyclers
- DNA and Genetic Analysers

Please visit [www.4ti.co.uk](http://www.4ti.co.uk) for full compatibility table to ensure you choose the correct plate for your instrument and block type.

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