

### XEN Shelf Life

Each XEN detergent is allocated a validated shelf life from the date of manufacture, as follows:

Product	Shelf Life* (months)
XEN Xcelerate	18
XEN Enzymatic	24
XEN Enzymatic+	24
XEN QuadX	24
XEN Neutral	24
XEN Neutral+	24
XEN Universal	24
XEN Universal+	24
XEN Rinse	36
XEN Instrument Lubricant+	36
XEN Instrument Shine	36
XEN Chamber Shine	24
Xen Chamber Shine+	36

\*From date of manufacture

The shelf life provides a time frame in which the products are known to deliver performance to its specification. Customers should not rely on products to deliver optimal performance beyond the validated shelf-life period or expiry date.

Shelf life values are established by conducting detailed stability testing to quality control specifications. For new formulations or when time is limited, accelerated aging studies are conducted at elevated temperatures to simulate long-term storage. These are followed up by real-time studies to confirm findings.

In addition to standard stability quality control testing, products may also undergo specific physical or chemical tests depending on formulation, such as pH, foaming properties, or active ingredient concentration (e.g., acidity, alkalinity, or chelating agents).

### Managing Opened Containers

Once a container is opened, the shelf life can be shortened due to the many variables that can impact stability, such as storage temperature, how the container is resealed, and environmental contamination.

Users should follow their facility's policies and procedures to manage open containers effectively. These may include:

- Marking containers with the date they were opened
- Re-seal containers when not in use
- Setting facility-specific timeframes for using open containers before disposal

These steps help ensure safety and maintain product integrity throughout use.

### Conclusion

Understanding and adhering to the validated shelf life of XEN detergents is essential to ensure product performance, patient safety, and compliance with quality standards. While unopened products have defined shelf lives based on rigorous testing, opened containers should be managed carefully through internal protocols to maintain integrity. By following these guidelines, users can be confident in the effectiveness and reliability of XEN products throughout their use.