

## Nymi Band Lifetime & Reliability

The Nymi Band has been designed to surpass an operational lifetime of 3 years. Accelerated lifetime testing is built into our design validation process, ensuring the Nymi Band will perform uninterrupted when it matters most.

Component	Requirement	Accelerated Testing Conditions
Battery	>80% capacity after 3yrs	500 charge/discharge cycles
Strap Clasp	Functional after 3yrs typical use	6000 clasping cycles
Strap Durability	Withstands repeated daily bending and pulling without deformation or failure	3000 +/-90 deg bend cycles 80N force for 60 sec. repeated 3 times
Drop Resilient	Withstands repeated drops from a height of 1.5m without cosmetic damage or failure	10 drops from 1.5m onto a concrete surface
Cleaning	Withstands daily wipe down Withstands daily scrub/rinse cycles	5000 wiping cycles with 70% isopropanol and lint free cloth 25000 brush cycles with soap and water rinse
Charger	Mechanically robust to daily charging	2200 mating cycles between Nymi Band and charger
Fingerprint Sensor	Withstands daily use without deterioration in appearance or performance	15N press applied 6000 times
Haptic Motor	Functional after 3yrs typical use	45000 cycles over 48 hrs
Buttons	Functional after 3yrs typical use	10000 cycles
External vibration	Robust to extended exposure to vibration	30min applied to each axis at the following frequencies - 5, 12, 20, 200, 500 Hz
Surface finish	Resistant to sweat, salt spray and hand lotion without degradation in material or appearance	Solutions applied and kept at 40deg C for 120hrs
UV Exposure	Withstands daily exposure to UV light without mechanical degradation or discolouration	340nm @ 1100 W/m <sup>2</sup> for 100hrs
Extreme temperature storage	Withstands low temperature storage without failure Withstands high temperature storage with failure	120hrs at -20deg C 120hrs at 60deg C @ 93% humidity
Biocompatibility	Safe for daily use	Tested to ISO 10993, NIOSH 9100 and ASTM 6661 standards
Breakaway Force	Average Pull Force of >100 N required to breakaway band from wrist	20 cycles on 5 bands Pull to Failure or up to 260 N