pesign for sustainability (pfs) scorecard

With our DfS scorecard, we drive sustainability improvement during the product development process through multiple product sustainability criteria divided into seven impact areas.

Milli-Q[®] IX 7003 Pure Water Purification System

Ultimate pure water solution - less electricity, more compact and mercury-free UV lamps

Impact areas	Results
MATERIALS	29% system size reduction with 4% weight decrease thanks to more compact design 80% reduction of plastic use in purification cartridges thanks to extended lifespan and more compact design
SUPPLIERS & MANUFACTURING	No change compared to baseline product in consideration of our DfS criteria
PACKAGING	For purification cartridges' packaging, 42% weight and 45% volume reduction compared to initial design due to new protective insert design and twin box concept. System's corrugated box with sustainable forestry certification. Protective inserts made of 100% bio-based polyethylene (PE) foam from sugar cane waste for the system and made of PE foam with a minimum of 50% recycled content for the E-POD® water remote dispensers.
ENERGY & EMISSIONS	41% reduction of system electricity consumption thanks to optimization of components and processes as well as an embedded improved "Lab Close" mode
WATER	13% water reduction during system use thanks to new periodic EDI rinsing Reduction of water consumption during system quality control thanks to the implementation of a new impermeability test by air instead of by water
USABILITY & INNOVATION	Innovative bactericidal lamp with mercury-free UVC LED technology Easy and quick cartridge replacement thanks to unique patented twist and lock technology
CIRCULAR ECONOMY	The system is designed to be easily maintainable and have a lower replacement frequency of purification consumables. Implementation of a drain cap enables to purge about 44% of the water from the purification cartridges, representing about 25% of the cartridges' total weight prior to disposal.

Baseline product: ZRXV003T0 – Elix® Advantage 3

© 2024 Merck KGaA, Darmstadt, Germany and/or its affiliates. All Rights Reserved. The vibrant M, Milli-Q, Elix, Q-POD and E-POD are trademarks of Merck KGaA, Darmstadt, Germany or its affiliates. All other trademarks are the property of their respective owners. Detailed information on trademarks is available via publicly accessible resources.



