NEW

Industrial Water Treatment

GENERATION

New high-performance gel-type cation exchange resins

Lewatit MonoPlus® S 108
Lewatit MonoPlus® S 108 H

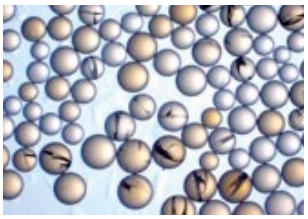
Lewatit®

LANXESS
Energizing Chemistry

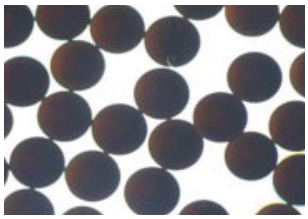
LEWATIT MONOPLUS® S 108* AND LEWATIT MONOPLUS® S 108 H* – NEW MULTI-TALENTED PRODUCTS

Proven monodispersity and improved stability

The special monodisperse ion exchange matrix helps to ensure long service life even with low cycle times (regeneration/exhaustion). One of the key properties of Lewatit MonoPlus® S 108 and S 108 H is that the resin beads remain in excellent condition even after many exhaustion cycles. Thanks to the beads' improved chemical and physical stability, there is a much lower risk of problems occurring due to fines. The formation of such fines is virtually negligible due to the high level of monodispersity in production (uniformity coefficient ≤ 1.05).



Stability of a competitive product after the osmotic shock test

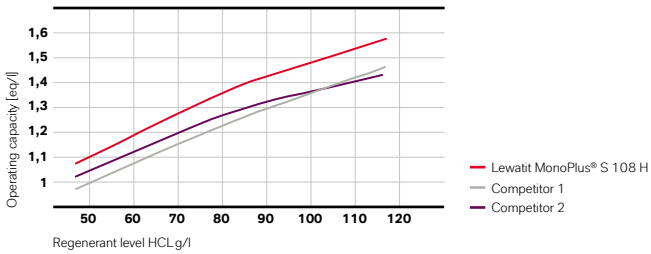


Stability of Lewatit MonoPlus® S 108 H after the osmotic shock test

Higher capacity

To increase economic efficiency, the functionality of the resins has been improved. A higher "total capacity" helps to ensure high operating capacities with very low leakage and low regenerant requirement. The degree of crosslinking achieved with Lewatit MonoPlus® S 108 (H) ensures outstanding kinetics.

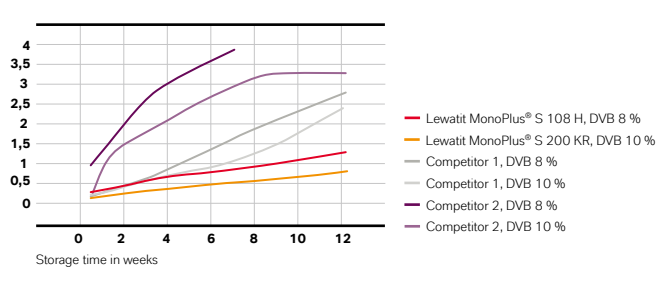
		Total capacity
Lewatit MonoPlus® S 108	eq/l	min. 2.2
Lewatit MonoPlus® S 108 H	eq/l	min. 2.0



Operating capacity of the cation exchange resin (H-form) compared with that of competitive products

Minimum self-leaching and high oxidation stability

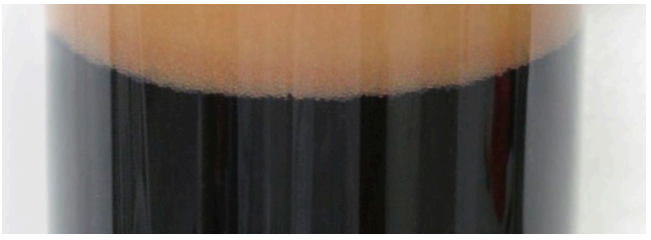
On account of the latest measuring techniques, the leaching behavior of cation exchange resins has become an important quality characteristic. Self-leaching or oxidation attack (e.g. through free chlorine) can result in the additional generation of high molecular weight substances. Lewatit MonoPlus® S 108 and S 108 H have very low self-leaching characteristics, and their chemical matrix has improved resistance to oxidation attack. The graph on the right shows the relationship between storage time in weeks and extinction (self-leaching). A high level of extinction leads to a marked increase in the release of TOC (total organic carbon) from the cation exchanger, which can, in turn, result in blocking of the anion ex-changer. The operating conditions in the unit deteriorate and the quality of the water produced is reduced.



TOC release (leaching) of the cation exchange resin (H-form) compared with that of competitive products

Optimized use in mixed beds

One of the most critical operations in mixed bed polisher systems is the separation and regeneration (internal or external) step of ion exchange resins. A perfect separation of the both ion exchange components is essential, both physically and visually. The use of Lewatit MonoPlus® S 108 or Lewatit MonoPlus® S 108 H with a monodispersity resulting in an uniformity coefficient of max. 1.05 is next to an appropriate difference in resin density and sharply contrasting colours one of the dominating factors in order to reach both, excellent separation behaviour and required regeneration efficiency. Lewatit MonoPlus® S 108 and Lewatit MonoPlus® S 108 H are the results of more than 70 years of experience in the development and production of ion exchange resins. Both resins are optimally geared to use with other Lewatit® products.



Perfect separation of cation and anion exchange resins in a mixed bed

* Patent pending

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