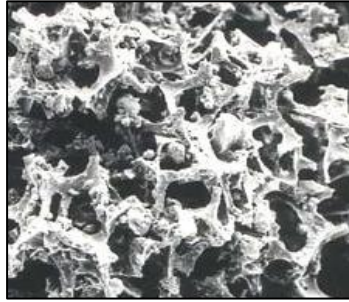


LEVAPOR HIGH PERFORMANCE BIOCARRIER

LEVAPOR - Why is Levapor a high-performance biocarrier for the wastewater treatment



LEVAPOR BIO-CARRIER



CROSS SECTION

LEVAPOR is an innovative composite material on basis of special porous PU foam and surface active pigments, with

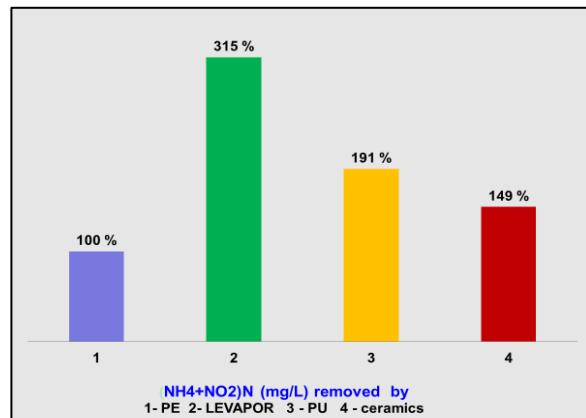
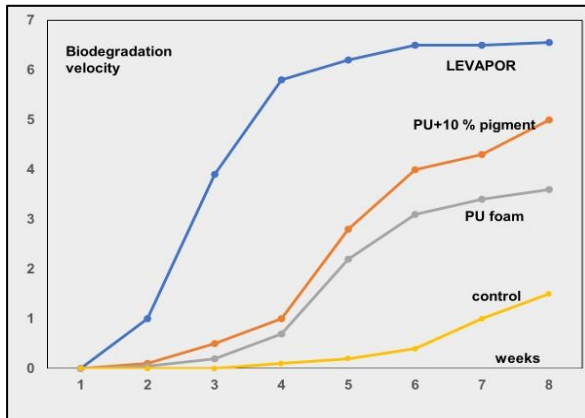
UNIQUE PROPERTIES improving **SEVERAL BENEFITS** as biocarrier

The extremely high adsorbent surface enables

- Fast microbial colonisation
- Fast biofilm generation and process startup
- Higher performance of the bioprocess
- Higher process stability
- Lower degree of reactor filling, meaning
- Lower energy consumption for aeration

Property	LEVAPOR
Dimensions , mm	20 * 20 * 7
Effective surface (m ² /m ³)	ca.15. – 20.000
Bulk weight, kg/m ³	25 - 26
Reactor filling , %	12 – 15
Porosity , %	90 - 95
Microbial colonization, minutes	120 – 180
Full fluidization at (m ³ /m ² *h) air	5 - 7

The benefits of LEVAPOR in the biological wastewater treatment



Acceleration and stabilization of biodegradation

Higher space-time-yields

Typical applications of LEVAPOR biocarrier:

- Municipal and industrial wastewater treatment , in
- New plants and upgrade of overloaded existing plants
- Ammonia removal in aquacultures (fish farms) with water reuse
- Biotreatment of polluted air



Industrial effluents

- Removal of persistent pollutants
- Removal of hazardous pollutants
- Nitrification/Denitrification of nitrogenous compounds.

Municipal sewage

- Nitrification/denitrification even at low temperatures
- Removal of micropollutants

In fluidized bed reactors with (IFAS) and without (MBBR) clarifiers



In RAS (Recirculated Activated Sludge) aquacultures

In RAS, fish are bred in tanks placed in buildings under controlled conditions. They need a continuous supply of clean water, with optimal temperature and O₂. Fish-toxic ammonia, released from food residues is eliminated from the water in LEVAPOR containing biofilters by nitrification and denitrification and then forwarded back to the fish farm container.

In biofilters in RAS aquacultures with water reuse



Two-step bio-trickling filter (BTF)



LEVAPOR-G for the biotreatment of polluted air

Biotreatment of polluted air in biotrickling filters – BTF

Due to the extremely high, adsorbent surface, enabling a fast mass transfer, fast adaptation of microorganisms, as well as a fast neutralization of generated inorganic acids, LEVAPOR biocarrier are very efficient in the biotreatment of polluted air in the industry and municipal sites.

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