



# IMMERDISC

## Lenticular Modules

Filtration process is a separation technique aiming to obtain chemical, physical and microbiological stability of the filtrate. This goal, in the beverage industry, *must* be achieved respecting the organoleptic characteristics of the product to be filtered.

Among these characteristics, extremely important are aroma and color.

Filtering without stressing and impoverishing the original product is possible today with the new line of **IMMER Filter-sheets**. They are the result of an attentive project where:

- The separation and adsorption mechanism act in a specific way on the product's unstable fractions. The special, asymmetric structure of the filtering medium does make possible a real "Fraction Filtration". This will avoid the accumulation of the clogging particles onto the surface, thus preserving the specific permeability and the retention grade for a longer time; all this will allow for higher yields together with a consistent quality of filtration.

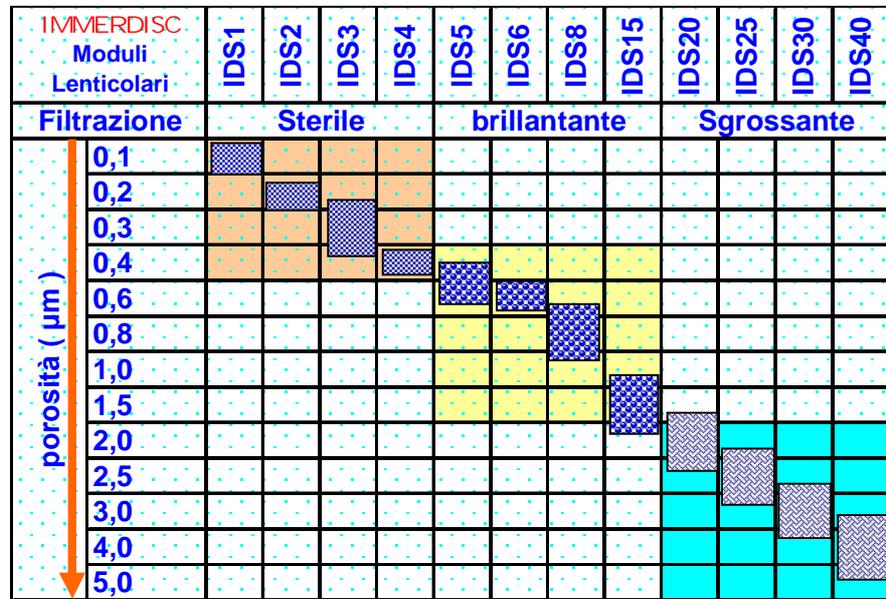
- The particular cellulose fibers incorporate the other elements in one single stable body. The mechanical resistance of the filtering medium and that of the structure's elements (stainless-steel and thermo-resistant plastic polymers), together with the innovative design of the



- IMMERDISC** Lenticular Modules make possible repeated cycles of washing and steaming. They are available with flat adaptor (Ø 12 e 16") and with bayonet base (Ø12"), with a filtering surface of 1,9 m<sup>2</sup> (Ø 12") and 3,7 m<sup>2</sup> (Ø 16").
- A calibrated Z potential Z acts on the unstable fractions, enhancing the product's stability and filterability for further possible filtrations. All this is actually possible without stressing and impoverishing the filtrate, especially in regards of color.
- Beverage filtration (food) requires the use of accurately selected raw materials; specifically, its physical-chemical and microbiologic characteristics are tested prior, during production process and on the finished product as well, in order to guarantee maximum safety and best performance to the user.
- The wide range of **IMMERDISC** Lenticular Modules is able to satisfy different filtration grades, from the coarsest to the sterile, for a safe retention of yeast, bacteria and mould (see LRV table).
- Traceability of the final product is guaranteed by rigorous Quality Control procedures.

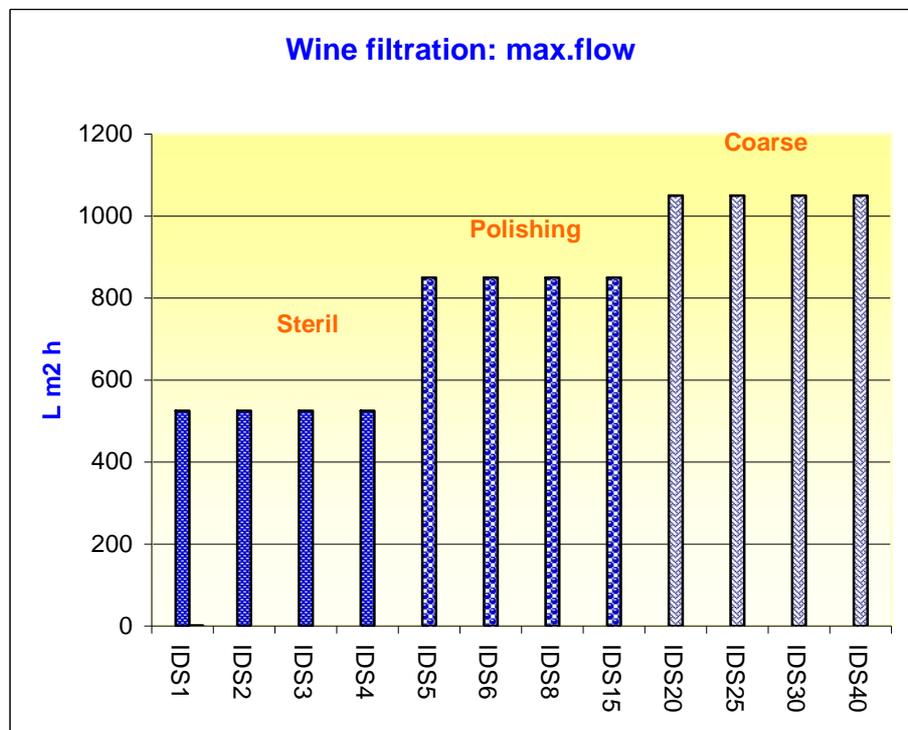
Filtration media do have a characteristic relation between filtration yield and retention grade, where one is in inverse proportion to the other.

The porosity of a depth filter is a valuation parameter to be considered together with its typical permeability and, for filter sheets, together with its LRV (Logarithmic Retention Value).



Filter sheets' permeability is higher in the coarser types and lower in the sterile ones. This difference, within the IMMERDISC Lenticular Modules range, is higher than 1: 30 if we consider IDS1 with IDS40 modules; The IMMERDISC range is able to satisfy the most different applications.

For wine filtration we recommend the flux shown in the diagram, according to the different applications.



IMMERDISC	LRV
IDS1	>9
IDS2	>8,3
IDS3	>6,8
IDS4	>6,1

IMMERDISC sterile Lenticular Modules are characterized by their high LRV (Logarithmic Retention Value) in reference to yeast and bacteria (as for Lactic bacteria, please see the table). In preparation to bottling at cold conditions of wine and other drinks, IMMERSDISC Lenticular Modules are used both as final filter and as pre-filters prior cartridge microfiltration.