

FILTER SHEETS L Series

Pure cellulose, diatom and perlite-based depth filter sheets for wine filtration.

*Suitable for the manufacture of products intended for direct human consumption, as part of regulated usage in oenology.
In accordance with the current EU regulation n° 2019/934.*

SPECIFICATIONS AND OENOLOGICAL APPLICATIONS

LAFFORT® filter sheets are derived from extensive practical experience. Their extremely pure and highly fibrillated cellulosic composition is the supporting matrix. The L Series sheets present a positive electrokinetic potential (ZETA +) that promotes adsorption of the finest particles.

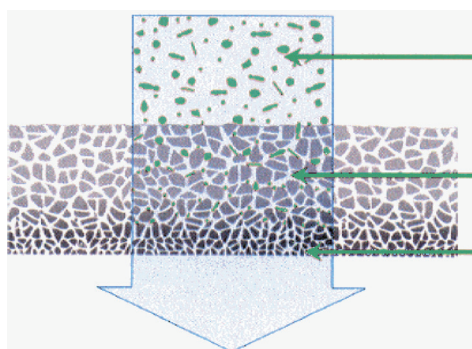
L Series Sheets technical objectives:

- Rough filtration.
- Clarifying filtration.
- Low yeast germ filtration.
- Sterile filtration.

Oenological benefits:

- Very low colour adsorption.
- Very low loss by drainage.
- Very low Ca⁺⁺ and Fe⁺⁺ extraction.
- Faster rinsing.

RETENTION MECHANISM OF L SERIES SHEETS



Sieving:
The largest particles are retained on the surface.

Deep filtration:
Mechanical retention in the mass.

Adsorption:
Complex mechanism to absorb extremely fine haze.

APPLICATIONS

TYPICAL APPLICATIONS	REF.	FILTERED PRODUCTS
Sterile Filtration	L 60	Filtration for "sterile" bottling on high risk wines (high pH, residual sugars). Limits bacteria contamination. Filtration prior cartridge (0.45 – 0.65µm).
	L 40	Sterile filtration. Filtration prior cartridge (0.45 – 0.65µm).
Filtration low in germs.	L 15	Sterile filtration in regard to yeasts. Filtration prior cartridge (0.65µm).
Filtration low in germs Clarifying filtration	L12	Fine filtration with significant germ reduction (yeasts).
	L 7	Clarifying filtration.
	L 5	Refining filtration.
Rough filtration	L 3	Filtration with strong haze retention power.



TECHNICAL INFORMATION

REF.	DENSITY (g/m ²)	MECHANICAL STRENGTH - DRY (10 ² KPa)	THICKNESS (mm)	ASHES (%)	PERMEABILITY (L/m ² /mm)	RETENTION THRESHOLD (µm)	FLOW*/40 x 40	DIFFERENTIAL PRESSURE	FILTRATION VOLUME / CYCLE
L 60	1400	≥ 2.0	3.7	51	40	0.35			6 – 8
L 40	1350	≥ 2.0	3.7	46	70	0.45	50 - 60	1 – 1.5 bar	6 – 8
L 15	1350	≥ 2.0	3.7	46	110	0.6	60 - 70	1.5 bar	6 – 8
L 12	1350	≥ 2.0	3.7	46	150	1.0	75 - 80	1.5 bar	6 – 8
L 7	1350	≥ 2.0	3.8	46	190	1.5	80 - 90	2 bars	6 – 8
L 5	1350	≥ 2.0	3.9	46	220	2	100 - 120	2.5 bars	6 – 8
L 3	1300	≥ 2.0	4.0	46	520	2 - 3	120 - 140	2.5 bars	6 – 8

- Flows are understood as L/h/sheet for 40 x 40 sheets.
- The differential pressure (ΔP) corresponds to the pressure difference between the input and output of the filter, it provides information concerning clogging. Each type of clogging accepts a working pressure that must be monitored in order to avoid re-emission.
- The filtration volume/cycle expressed in hL is on average 6 to 8 times higher than the maximum filterable volume per hour:
Example:
 Sheet L7 - Number of sheets: 20 units
 Flow 80 L/h/sheet i.e. maximum volume of 16 hL (80 x 20).
 Filtration volume /cycle: 16 x 6 at 8 = 96 hL at 128 hL.
 (*) indicative non-contractual value.

RECOMMENDATIONS FOR USE

Filter sheets must be handled carefully. Do not use damaged sheets. Before use it is recommended to check the filter's gaskets and plates. Make sure the sheets are assembled in the correct direction for filtration. The corrugated side is the input end of the liquid and the smooth side with the manufacturer's references is the output end of the filtered liquid.

The feed pump adapts the flow to the total filtration surface and to the type of sheet. Use a pump adapted to sheet filtration.

Preparing the filter and sheet rinsing:

- Rinse the sheets for 15 to 20 minutes with clean water or acidified water (citric acid at 2%) in the filtering direction, to eliminate any particular taste. The quantity of water required is approximately 15 - 20 litres/sheet.
- Tighten the gasket progressively during rinsing.

Sterilisation with hot water:

- It is recommended to use softened water free from impurities.
- Recommended water temperature: 85°C (185°F) minimum.
- When the valves reach the right temperature, circulate with water for 20 - 25 minutes with a pressure of at least 0.5 bars at the outlet.
- Maintain the vent or purge valves slightly open for optimal effect.
- Final tightening of the filter is only done when the filter is cold.
- No chemical cleaning or sterilising product is recommended.

STORAGE RECOMMENDATION

- Store above ground level in a dry area not liable to impart odours. Ensuring stock is kept at a moderate temperature, in its original, unopened packaging.
- Optimal date of use: 2 years.

PACKAGING

L3, L5, L7, L12, L15, L40, L60: 40 x 40 with or without holes, box of 100 sheets (4 x 25 units).

