

PROTOSOL PSL411

BEER CLARIFICATION

Protosol is a specifically selected colloidal silica sol, which promotes sedimentation of proteins and other solids from beer and wort. Protosol effectively clarifies wort and beer at very low addition rates, enabling increased throughput of your brewery without the need for investment in tank or filtration capacity.



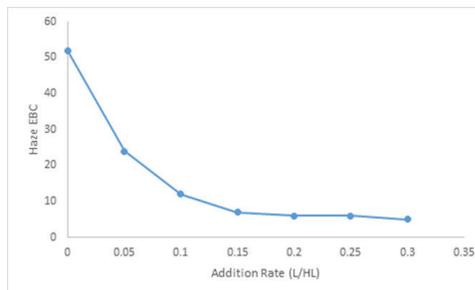
PRINCIPLE

The negatively-charged silica particles in Protosol associate to form hydrogel in the beer and this then interacts with the insoluble beer haze-forming particles. The resultant flocs precipitate to form sediment.



TREATMENT RATES

Protosol is typically added to beer at rates in the range 20–200ml/hl. The level of solids in the beer will determine the required addition rate. The correct addition rate is best identified by performing a lab-scale optimisation test and assessing for clarity and sediment compaction.



TYPICAL PROPERTIES

VISCOSITY	5 mPa.s
SOLIDS	30%
PH	9.5
NA2O	0.3%
DENSITY	1.2
SPECIFIC SURFACE AREA	160 m ² /g



APPLICATION

Protosol can be added to the chilled beer in-line during transfer from fermenter to maturation tank, to ensure thorough mixing with the beer.



PACKAGING & STORAGE

Protosol should be stored at a temperature of 5-50°C. If allowed to freeze, irreversible precipitation will occur. Do not store in direct sunlight or bright light. Under ideal conditions, Protosol has a shelf life of 18 months in ideal conditions from manufacturing date.

Protosol is available in 5kg and 25kg package sizes.



QUICK NOTES

BENEFITS

Protosol is a processing aid so is not required to be listed on labels.

Protosol does not contain animal derivatives.

Beer filterability is enhanced due to removal of solids

TREATMENT RATE

20–200ml/hl

REGULATORY

Permitted to be added to beer under GMP via JECFA GSFA 14.2.1.

Protosol can be used as a processing aid as it meets the requirements of EU General Food Law (Regulation (EC) No 178/2002 (as amended))

CONTACT US

For more information, please visit us at www.lallemandbrewing.com

For any questions, you can also reach us at abvickers@lallemand.com