Oryza Lager

Vienna Lager
Recipe by **Lars Proske**

Batch Size	Losses	Boil Time	Mash Efficiency	Mash Volume	Sparge Volume
26 L	**2 L**	**60 mins**	**75%**	**19.20 L**	**16.60 L**

OG (Plato)	FG (Plato)	IBU	Colour (EBC)	ABV
11.31	**3.27**	**18.1**	**7.2**	**4.29%**

Mash and Sparge volumes calculated using the "Grainfather (230V / 16A) - Bluetooth Controller" profile.

Fermentables

	Amount	Usage	PPG	EBC
Pilsner Supplier: Weyermann	3.00 kg (50%)	**Mash**	37.8	3.4
Parboiled Reis Supplier: Custom Fermentable	1.50 kg (25%)	**Mash**	30.0	1.4
Wiener Malz Supplier: Custom Fermentable	1.50 kg (25%)	**Mash**	30.0	7.6

Mash Steps

	Temp	Time
Einmaischen	54 °C	1 min
Eiweisrast	52 °C	20 min
Maltoserast	62 °C	60 min
Verzuckerungsrast 1	72 °C	10 min
Verzuckerungsrast 2	78 °C	5 min

Hops

	Amount	Type	Usage	Time	AA
Saaz, U.S.A (IBU: 9.8)	25.00 g (42%)	Pellet	Boil	60 min	3.9

Hops

	Amount	Type	Usage	Time	AA
Saaz, U.S.A (IBU: 8.4)	35.00 g (58%)	Pellet	Boil	10 min	3.9

Yeast

	Amount	Attenuation
SafLager West European Lager Product Code: S-23	2 Päckchen	82 %

Extras

	Amount	Usage	Time
Irish Moss	2 g	Boil	15 min

Water Additions

	Mash	Sparge
Salt & Acid additions		
Sodium Chloride	3.16 g	2.4 g
Calcium Hydroxide	0.57 g	0.43 g
Sodium Bicarbonate (Baking Soda)	1.3 g	0.99 g
Calcium Chloride	3.97 g	3.02 g
Magnesium Sulphate (Epsom Salt)	0.97 g	0.74 g
Calcium Sulphate (Gypsum)	2.1 g	1.6 g

Fermentation Steps

	Temp	Time
Hauptgärung	12 °C	12 days

Notes

Splitbatch:
Batch 1 Hauptgärung wie oben angegeben
Batch 2 Haupgärung 2 Tage mit Tsingtao Hopfen stopfen.