

Lager#1

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **44**
- SRM **4.6**
- Style **German Pilsner (Pils)**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19.8 liter(s)**

Mash information

- Mash efficiency **60 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.1 liter(s)**
- Total mash volume **18.8 liter(s)**

Steps

- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **0 min**

Mash step by step

- Heat up **14.1 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **40 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **10.4 liter(s)** of **76C** water or to achieve **19.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Bohemian Pilsner Malt	4 kg (85.1%)	81 %	4
Grain	Weyermann - Carapils	0.4 kg (8.5%)	78 %	4
Grain	Strzegom Monachijski typ I	0.3 kg (6.4%)	79 %	16

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	10 g	30 min	6.7 %
Boil	Marynka	10 g	45 min	6.7 %
Boil	Marynka	20 g	50 min	6.7 %
Boil	Sybilla	15 g	15 min	6.2 %
Boil	Sybilla	20 g	5 min	6.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
Saflager S-23	Lager	Dry	11.5 g	Fermentis

Extras

Type	Name	Amount	Use for	Time
Fining	Whirlfloc	5 g	Boil	15 min