

Lager #1

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **29**
- SRM **3.4**
- Style **German Pilsner (Pils)**

Batch size

- Expected quantity of finished beer **200 liter(s)**
- Trub loss **5 %**
- Size with trub loss **210 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **241.5 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.7 liter(s) / kg**
- Mash size **166.5 liter(s)**
- Total mash volume **211.5 liter(s)**

Steps

- Temp **65 C**, Time **40 min**
- Temp **72 C**, Time **20 min**

Mash step by step

- Heat up **166.5 liter(s)** of strike water to **71.1C**
- Add grains
- Keep mash **40 min** at **65C**
- Keep mash **20 min** at **72C**
- Sparge using **120 liter(s)** of **76C** water or to achieve **241.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzniejszy	40 kg (88.9%)	80 %	3.7
Grain	Pszeniczny	5 kg (11.1%)	85 %	5

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	300 g	60 min	7.8 %
Aroma (end of boil)	Marynka	100 g	5 min	7.8 %
Whirlpool	Marynka	100 g	5 min	7.8 %

Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Dry	100 g	Fermentis