

hallertauer lager

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **15**
- SRM **3.6**
- Style **Standard American Lager**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

Steps

- Temp **66 C**, Time **25 min**
- Temp **73 C**, Time **45 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **25 min** at **66C**
- Keep mash **45 min** at **73C**
- Keep mash **5 min** at **78C**
- Sparge using **15.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	4 kg (80%)	80 %	4
Grain	Bestmalz Carmel Pils	0.5 kg (10%)	75 %	5
Grain	Rice, Flaked	0.5 kg (10%)	70 %	2

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Tradition	30 g	20 min	5.5 %
Boil	Tradition	30 g	5 min	5.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Dry	11.5 g	Fermentis