

Lager

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **49**
- SRM **3.1**
- Style **German Pilsner (Pils)**

Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **20 %/h**
- Boil size **17.9 liter(s)**

Mash information

- Mash efficiency **81 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **9.5 liter(s)**
- Total mash volume **12.2 liter(s)**

Steps

- Temp **62 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **9.5 liter(s)** of strike water to **68C**
- Add grains
- Keep mash **45 min** at **62C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **11.1 liter(s)** of **76C** water or to achieve **17.9 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2.5 kg (91.9%)	81 %	3.5
Grain	Weyermann - Carapils	0.11 kg (4%)	78 %	4
Grain	Carabody	0.11 kg (4%)	78 %	8

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	25 g	60 min	11 %