

american lager

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **18**
- SRM **3.2**
- Style **German Pilsner (Pils)**

Batch size

- Expected quantity of finished beer **30 liter(s)**
- Trub loss **5 %**
- Size with trub loss **31.5 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **38.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.3 liter(s)**
- Total mash volume **23 liter(s)**

Steps

- Temp **55 C**, Time **10 min**
- Temp **68 C**, Time **60 min**

Mash step by step

- Heat up **17.3 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **10 min** at **55C**
- Keep mash **60 min** at **68C**
- Sparge using **27 liter(s)** of **76C** water or to achieve **38.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	5 kg (76.9%)	81 %	4
Grain	Steinbach Karamel Pils	0.75 kg (11.5%)	79 %	6
Adjunct	ryż	0.75 kg (11.5%)	--- %	---

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	22.5 g	60 min	10 %
Boil	Lublin (Lubelski)	22.5 g	2 min	4 %

Yeasts

Name	Type	Form	Amount	Laboratory
Saflager S-23	Lager	Slant	200 ml	Fermentis Division of S.I.Lesaffre