

Pils

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **29**
- SRM **3.8**
- Style **German Pilsner (Pils)**

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 **86 %**
- Liquor-to-grist ratio **3.1 liter(s) / kg**
- Mash size **14 liter(s)**
- Total mash volume **18.5 liter(s)**

Steps

- Temp **63 C**, Time **30 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **14 liter(s)** of strike water to **69.9C**
- Add grains
- Keep mash **30 min** at **63C**
- Keep mash **40 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **15.8 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pilsner Malt	4.2 kg (93.3%)	81 %	5
Grain	Weyermann - Carapils	0.3 kg (6.7%)	78 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Iunga	20 g	60 min	12 %
Boil	Lubelski	25 g	15 min	2.3 %
Aroma (end of boil)	Lubelski	26 g	1 min	2.3 %

Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Dry	22 g	Fermentis