

pils

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **33**
- SRM **3.8**
- Style **Bohemian Pilsener**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **27.6 liter(s)**

Mash information

- Mash efficiency **68 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **21.6 liter(s)**
- Total mash volume **27 liter(s)**

Steps

- Temp **54 C**, Time **10 min**
- Temp **64 C**, Time **30 min**
- Temp **70 C**, Time **30 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **21.6 liter(s)** of strike water to **58.3C**
- Add grains
- Keep mash **10 min** at **54C**
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **70C**
- Keep mash **10 min** at **76C**
- Sparge using **11.4 liter(s)** of **76C** water or to achieve **27.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	5.2 kg (96.3%)	81 %	4
Grain	carapils	0.2 kg (3.7%)	75 %	6

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Perle	20 g	60 min	6.2 %
Boil	Perle	20 g	30 min	6.2 %
Boil	Perle	20 g	15 min	6.2 %
Aroma (end of boil)	Perle	20 g	5 min	7 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM31 Bawarska Dolina	Lager	Slant	300 ml	Fermentum Mobile
Omega German Pils	Lager	Slant	300 ml	Omega Yeast

Extras

Type	Name	Amount	Use for	Time
Fining	wirflock	1 g	Boil	5 min