

## Pils

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **23**
- SRM **3.9**
- Style **Vienna Lager**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **10 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **23 liter(s)**
- Total mash volume **28.8 liter(s)**

### Steps

- Temp **64 C**, Time **15 min**
- Temp **72 C**, Time **45 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **23 liter(s)** of strike water to **69.5C**
- Add grains
- Keep mash **15 min** at **64C**
- Keep mash **45 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **11.8 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	5 kg (87%)	81 %	4
Grain	Strzegom Wiedeński	0.5 kg (8.7%)	79 %	10
Grain	Briess - 2 Row Carapils Malt	0.25 kg (4.3%)	75 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	10 g	60 min	10 %
Boil	Saaz (Czech Republic)	30 g	15 min	4.5 %
Boil	Saaz (Czech Republic)	40 g	5 min	4.5 %
Aroma (end of boil)	Saaz (Czech Republic)	30 g	5 min	4.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Lallemand Diamond Lager	Lager	Dry	22 g	---