

## germańskie

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **29**
- SRM **3.2**
- Style **German Pilsner (Pils)**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **90 min**
- Evaporation rate **5 %/h**
- Boil size **32.3 liter(s)**

### Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.8 liter(s)**
- Total mash volume **21 liter(s)**

### Steps

- Temp **50 C**, Time **30 min**
- Temp **65 C**, Time **30 min**
- Temp **70 C**, Time **30 min**
- Temp **76 C**, Time **0 min**

### Mash step by step

- Heat up **15.8 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **30 min** at **50C**
- Keep mash **30 min** at **65C**
- Keep mash **30 min** at **70C**
- Keep mash **0 min** at **76C**
- Sparge using **21.8 liter(s)** of **76C** water or to achieve **32.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Bohemian Pilsner Malt	5 kg (95.2%)	81 %	4
Grain	Weyermann - Carapils	0.25 kg (4.8%)	78 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Saaz (Czech Republic)	60 g	60 min	4.5 %
Boil	Saaz (Czech Republic)	20 g	15 min	4.5 %
Boil	Saaz (Czech Republic)	30 g	5 min	4.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Dry	14.38 g	Fermentis