

# bawaria pils

- Gravity **12.1 BLG**
- ABV ---
- IBU **35**
- SRM **4.1**
- 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 **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.2 liter(s)**
- Total mash volume **17.6 liter(s)**

## Steps

- Temp **63 C**, Time **60 min**
- Temp **74 C**, Time **10 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **13.2 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **60 min** at **63C**
- Keep mash **10 min** at **74C**
- Keep mash **1 min** at **78C**
- Sparge using **16.5 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	4 kg (90.9%)	80 %	4
Grain	Weyermann - Carapils	0.3 kg (6.8%)	78 %	4
Grain	Weyermann - Melanoiden Malt	0.1 kg (2.3%)	81 %	53

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	20 g	60 min	13.5 %
Aroma (end of boil)	Lublin (Lubelski)	10 g	10 min	4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
brewmaster lager	Lager	Liquid	300 ml	erbslok