

# Zaganiacz - German Pilsner

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- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **25**
- SRM **3.4**
- 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 **90 min**
- Evaporation rate **20 %/h**
- Boil size **29.9 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.5 liter(s)**
- Total mash volume **18 liter(s)**

## Steps

- Temp **52 C**, Time **10 min**
- Temp **64 C**, Time **30 min**
- Temp **70 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **13.5 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **30 min** at **64C**
- Keep mash **20 min** at **70C**
- Keep mash **5 min** at **78C**
- Sparge using **20.9 liter(s)** of **76C** water or to achieve **29.9 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Bohemian Pilsner Malt	4 kg (88.9%)	81 %	4
Grain	Weyermann - Carapils	0.5 kg (11.1%)	78 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertau Spalt Select	25 g	60 min	3.4 %
Boil	Hallertau Mittelfruh	25 g	30 min	3 %
Boil	Hallertau Spalt Select	25 g	20 min	3.4 %
Boil	Hallertau Mittelfruh	25 g	10 min	3 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM31 Bawarska Dolina	Lager	Liquid	30 ml	Fermentum Mobile