

# Świerkowe PA

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **35**
- SRM **4.1**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **12.5 liter(s)**
- Trub loss **4 %**
- Size with trub loss **13 liter(s)**
- Boil time **75 min**
- Evaporation rate **20 %/h**
- Boil size **16.8 liter(s)**

## Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **3.4 liter(s) / kg**
- Mash size **9.1 liter(s)**
- Total mash volume **11.8 liter(s)**

## Steps

- Temp **76 C**, Time **10 min**
- Temp **68 C**, Time **60 min**

## Mash step by step

- Heat up **9.1 liter(s)** of strike water to **75.1C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **76C**
- Sparge using **10.4 liter(s)** of **76C** water or to achieve **16.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2 kg (74.8%)	80 %	5
Grain	Oats, Flaked	0.5 kg (18.7%)	78 %	2
Grain	Carahell	0.125 kg (4.7%)	77 %	26
Grain	Weyermann - Acidulated Malt	0.05 kg (1.9%)	80 %	6

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook PL	20 g	60 min	9.1 %

## Yeasts

Name	Type	Form	Amount	Laboratory
US-05	Ale	Slant	100 ml	---

## Extras

Type	Name	Amount	Use for	Time
Water Agent	Gips piwowarski	2 g	Mash	60 min
Flavor	Pędy świerku	75 g	Boil	30 min
Flavor	Pędy świerku	25 g	Boil	15 min

Other	Witamina C	2 g	Bottling	---
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