

## PDA

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- Gravity **10 BLG**
- ABV **4 %**
- IBU **14**
- SRM **3.8**
- Style **Specialty Beer**

### Batch size

- Expected quantity of finished beer **16 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **20.2 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9.9 liter(s)**
- Total mash volume **13.2 liter(s)**

### Steps

- Temp **58 C**, Time **4 min**
- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **50 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **9.9 liter(s)** of strike water to **64.3C**
- Add grains
- Keep mash **4 min** at **58C**
- Keep mash **30 min** at **64C**
- Keep mash **50 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **13.6 liter(s)** of **76C** water or to achieve **20.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	2 kg (60.6%)	80 %	7
Grain	Płatki pszeniczne	1 kg (30.3%)	85 %	3
Grain	Płatki owsiane	0.2 kg (6.1%)	85 %	3
Grain	Weyermann - Acidulated Malt	0.1 kg (3%)	80 %	6

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Centennial	10 g	40 min	10.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-33	Ale	Dry	11 g	Fermentis

### Extras

Type	Name	Amount	Use for	Time
Spice	kolendra	8 g	Boil	40 min

Flavor	skórki	22 g	Boil	5 min
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