

## paleale pędy sosny

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **49**
- SRM **4.5**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **18 %/h**
- Boil size **35.3 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.6 liter(s)**
- Total mash volume **24.8 liter(s)**

### Steps

- Temp **66 C**, Time **60 min**
- Temp **76 C**, Time **5 min**

### Mash step by step

- Heat up **18.6 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **5 min** at **76C**
- Sparge using **22.9 liter(s)** of **76C** water or to achieve **35.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (80.6%)	80 %	5
Grain	Carahell	0.4 kg (6.5%)	77 %	26
Grain	Płatki jęczmienne	0.4 kg (6.5%)	80 %	4
Grain	Pszeniczny	0.4 kg (6.5%)	85 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	40 g	60 min	12 %
Boil	Simcoe	50 g	5 min	11 %
+250g pędy sosny				
Aroma (end of boil)	Mosaic	50 g	0 min	10 %
Aroma (end of boil)	Simcoe	50 g	0 min	11 %
+250g pędy sosny chłodzenie 80°C 15min				
Dry Hop	Simcoe	100 g	3 day(s)	11 %
Dry Hop	Centennial	100 g	3 day(s)	10.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
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Safale US-05	Ale	Dry	11 g	Fermentis
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### Extras

Type	Name	Amount	Use for	Time
Flavor	pȩdy sosny	250 g	Boil	5 min
Flavor	pȩdy sosny	250 g	Boil	0 min
Other	pȩdy sosny na wódce macerowane 2 tygodnie	100 g	Secondary	3 day(s)

### Notes

- 80st 15min  
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