

# Polski Pale Ale - kontrakt 1

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **37**
- SRM **5.4**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **60 liter(s)**
- Trub loss **5 %**
- Size with trub loss **63 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **75.9 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **48 liter(s)**
- Total mash volume **64 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **0 min**

## Mash step by step

- Heat up **48 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **0 min** at **78C**
- Sparge using **43.9 liter(s)** of **76C** water or to achieve **75.9 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	12 kg (75%)	80 %	5
Grain	cookie	1.2 kg (7.5%)	80 %	40
Grain	Płatki owsiane	1.2 kg (7.5%)	60 %	3
Grain	Płatki pszeniczne	0.8 kg (5%)	60 %	3
Grain	Viking Wheat Malt	0.8 kg (5%)	83 %	5

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	75 g	60 min	11 %
Boil	Zula	60 g	5 min	8.3 %
Boil	Oktawia	60 g	5 min	7.1 %
Whirlpool	Zula	120 g	0 min	8.3 %
Whirlpool	Oktawia	120 g	0 min	7.1 %
Dry Hop	Zula	180 g	7 day(s)	8.3 %
Dry Hop	Oktawia	180 g	7 day(s)	7.1 %

## Yeasts

Name	Type	Form	Amount	Laboratory
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s - 33	Ale	Dry	50 g	---
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